

1. CALL TO ORDER

2. MINUTES

A. November 9, 2021 PAB Meeting Minutes

3. OLD BUSINESS

A. Annexation Request

- (1) Request from **Caballero Holdings, LLC** to annex a total of 140.77± acres to include a 44.91± acres tract located at the northeast side of the terminus of Floyd Road; a 80.8± acres tract located on the north side of Eberhart Cemetery Road; a 9.467± acres tract, 4.397± acres tract and a 1.996± acres tract located southwest of the intersection of Jesse Jewell Parkway and Old Cornelia Highway (a/k/a **0 Eberhart Cemetery Road; 2465 Floyd Road, SE; 2166, 2170 and 2210 Old Cornelia Highway**) and to establish zoning as Planned Unit Development (P-U-D).

Ward Number: Three

Tax Parcel Number(s): 15-022-000-001B, 003 (Part); 15-033B-000-022, 024 and 026A

Request: Master planned mixed-use development

B. Zoning Amendment Request

- (1) Request from **Caballero Holdings, LLC** to amend an existing Planned Unit Development (P-U-D) zoning totaling 981.661± acres located east of Lanier Parkway (I-985), south of the intersection of Old Cornelia Highway and Dana Drive, south of Floyd Road and east of its terminus, having road frontage on the east side of Lenox Drive (a/k/a **0, 2490 and 2544 Floyd Road, SE; 0 Lenox Drive, SE; 0 Old Cornelia Highway, SE**).

Ward Number: Three

Tax Parcel Number(s): 15-021-000-164; 15-022-000-003M, 004, 034 and 086; 15-033-000-001

Request: Master planned mixed-use development

4. NEW BUSINESS

A. Variance Requests

- (1) Request from **Sonia del Carmen** to vary the rear yard and right side yard setback requirements on a 0.072± acre tract located on the north side of Rainey Street, west of Woods Mill Road (a/k/a **878 Rainey Street, NW**), having a zoning of Residential-II (R-II).

Ward Number: Five

Tax Parcel Number(s): 01-045-008-012

Request: Bedroom addition

- (2) Request from **Federal Construction** to vary the front yard setback requirement from Race Street on a 0.31± acre tract located on the southwest side of the intersection of Broad Street and Race Street and the northwest side of the intersection of Jesse Jewell Parkway and Race Street (a/k/a **430 Broad Street, SE**), having a zoning of General Business (G-B).

Ward Number: Four

Tax Parcel Number(s): 01-008-002-001

Request: Restaurant

B. Annexation Request

- (1) Request from **Moez Hasni** to annex a 5.503± acres tract located on the northeast corner of Jesse Jewell



Parkway and Crescent Drive, having frontage on Exit 24/ I-985 (a/k/a **374 and 400 Crescent Drive**) and to establish zoning as General Business (G-B).

Ward Number: Two

Tax Parcel Number(s): 15-033C-000-077

Request: Retail shopping center

**C. Rezoning Requests**

- (1) Request from **Fred and Olivia Skey** to rezone a 0.65± acre tract located on the east side of Northside Drive, southeast of its intersection with Ivey Terrace (a/k/a **352 Northside Drive, NW**) from Office and Institutional (O-I) and General Business (G-B) to Office and Institutional (O-I) with a special use.

Ward Number: Four

Tax Parcel Number(s): 01-025-005-010

Request: Single-family residence

- (2) Request from **Two Capital Partners** to rezone a 24.857± acres tract located on the southwest side of Shallowford Road and southeast side of the intersection of Skelton Road and Hudgins Street (a/k/a **600, 610 and 622 Shallowford Road, SW; 1515 Skelton Road, SW; 1448 and 1450 Hudgins Street, SW**) from Neighborhood Business (N-B) and General Business (G-B) to Planned Unit Development (P-U-D).

Ward Number: Five

Tax Parcel Number(s): 01-119C-001-001, 001A, 029, 029A, 029D and 031

Request: Master planned mixed-use rental community

**D. Zoning Amendment Request**

- (1) Request from **Mark D. Thebaut, D.D.S.** to amend an existing Planned Unit Development (P-U-D) zoning totaling 0.67± acre located on the southeast side of the intersection of Thompson Bridge Road and Lanier Avenue (a/k/a **1398 Thompson Bridge Road, NE**).

Ward Number: Two

Tax Parcel Number(s): 01-087-003-001

Request: Medical/Dental office / restaurant with drive-thru

**5. MISCELLANEOUS**

**6. ADJOURNMENT**

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**Date Submitted:** 11/29/2021  
**Presenter:** N/A  
**Item of Business:** November 9, 2021 PAB Meeting Minutes  
**Meeting Date:** 12/14/2021

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**Purpose of Request:**

The purpose of this request is to allow the Planning and Appeals Board to approve the minutes from the referenced meeting.

**History/Background:**

**Facts & Issues for Consideration:**

The draft minutes were reviewed by the Office & Records Coordinator and the Community Development Deputy Director.

**Department Recommendation:**

Approval of the minutes as presented.

**Department Director:**

Rusty Ligon

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**If funding is involved, are funds approved within the current budget?**

N/A

**Amount Requested:**

**Source of Funds:**

**Finance Comments:**

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**Administrative Comments:**

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**ATTACHMENTS:**

| Description                                                                                       | Type    |
|---------------------------------------------------------------------------------------------------|---------|
|  Draft Minutes | Minutes |

**GAINESVILLE PLANNING AND APPEALS BOARD  
MINUTES OF MEETING  
NOVEMBER 9, 2021**

**CALL TO ORDER** Chairman Carter at 5:30 p.m.

**Members Present:** Chairman Doug Carter, Vice-Chair Jane Fleming and Board Members Rich White, Kelvin Simmons, Eddie Martin and Ryan Thompson

**Members Absent:** Board Member Carmen Delgado

**Staff Present:** Community & Economic Director Rusty Ligon, Community & Economic Deputy Director Matt Tate and Recording Secretary Gwen Fleming

**Others Present:** Council Members Barbara Brooks and George Wangemann

**MINUTES OF SEPTEMBER 14, 2021**

**There was a motion to approve the minutes as presented.**

Motion made by Board Member Thompson

Motion seconded by Board Member White

**Vote – 6 favor, 1 absent (Delgado)**

**OLD BUSINESS**

**NEW BUSINESS**

**A. Annexation Requests**

- 1) Request from **Koch Foods of Gainesville, LLC** to annex a 0.572± acre tract located on the northwest side of the intersection of Industrial Boulevard and Mitchell Street (a/k/a **966 Industrial Boulevard**) and to establish zoning as Heavy Industrial (H-I).

Ward Number: Four

Tax Parcel Number(s): 00-050-001-007

Request: Poultry processing plant expansion

**Staff Presentation:** Deputy Director Matt Tate gave the following staff presentation:

The applicant is proposing to annex a 0.572± acre tract with a zoning of Heavy Industrial (H-I) and to rezone a 0.55± acre tract from Residential-II (R-II) to Heavy Industrial (H-I). The intent is to bring the subject property and the adjacent property owned by Koch Foods under on jurisdiction with a zoning of Heavy Industrial (H-I) in the city. The surrounding uses include mostly heavy industrial poultry processing uses and the Melrose Apartments (Public Housing) to the north. The adjacent Good News at Noon property was recently purchased by the applicant as part plant expansion. Good News at Noon has begun the process of building a new facility at the corner of Dorsey Street and Pearl Nix Parkway less than a half mile from the current site. The 0.572± acre subject property is zoned Heavy Industrial (I-II) in the County and is part of an existing unincorporated county island currently being used for truck parking for Koch Foods. The 0.55± acre subject property is zoned R-II and consists of three parcels and a small strip of right-of-way. Presently, the property contains part of a parking lot and a duplex rental home that will be demolished as part of the redevelopment. The applicant intends to redevelop the entire 10.0± acres campus owned by Koch Foods for a new poultry

processing plant which includes all of Mitchell Street. The existing facility is approximately 74,000 square feet in size and the new facility will range from approximately 170,000 to 183,000 square feet in size. The new facility includes space for poultry processing, freezer, office, employee and truck parking. Driveway access will be provided for delivery trucks off of Industrial Boulevard and Davis Street which is designed to better separate truck and employee parking off of Davis Street.

It is staff's opinion the proposal is consistent with the Comprehensive Plan. The subject property is located within the *Industrial* land use category and the Economic Development Gateways character area. This category includes areas containing or planned for a wide range of office, business, light industrial, manufacturing, transportation research and development uses.

The Planning Division staff is recommending **conditional approval** of the annexation and rezoning request based on the Comprehensive Plan and the adjacent industrial uses.

**Applicant Presentation:** William Fasulo, 4703 Hiawatha Drive, stated the goal is to build a state-of-the-art facility to do business, the current location is land-locked. Mr. Fasulo said the plan is to build the new facility and vacate the current one.

**FAVOR:** None

**OPPOSE:** None

**PLANNING AND APPEALS BOARD COMMENTS:** None

**There was a motion to recommend conditional approval of the annexation request with a zoning of Heavy Industrial (H-I).**

**Conditions**

1. All access point design for the subject property shall require review and approval by the Gainesville Public Works Department Director. All required access/traffic/sidewalk improvements associated with the proposal shall be at the full expense of the property owner.
2. The proposed redevelopment of the subject property shall meet the Gainesville Unified Land Development Code standards including but not limited to access, parking, stormwater, landscaping, fencing and signage.
3. An updated as-built survey/plat combining the subject property and adjacent properties owned by applicant shall be required.

Motion made by Board Member Thompson

Motion seconded by Board Member Martin

**Vote – 6 favor, 1 absent (Delgado)**

- 2) Request from the **Atlanta Botanical Garden, Inc.** to annex a total of 17.032± acres to include a 10.237± acres tract located on the northwest side of the intersections of Lake Hill Drive and Randall Street and Lake Hill Drive and Gary Street; and a 6.795± acres tract located on the west side of the cul-de-sac of Barrett Street, having road frontage on the north side of Riverbend Circle (a/k/a **115 Barrett Street, 102, 104 and 106 Gary Street;**

**213, 301, 303 and 305 Lake Hill Drive; 0, 100, 101, 102, 103, 104, 105, 106, 107, 109 and 111 Randall Street; 0 Riverbend Circle)** and to establish zoning as Planned Unit Development (P-U-D).

Ward Number: Two

Tax Parcel Number(s): 00-093-001-003A, 005, 020, 021, 022, 023, 027, 028, 029, 030, 031, 032, 033, 034, 035, 036, 037, 038, 039, and 040

Request: Atlanta Botanical Garden expansion

**Staff Presentation:** Deputy Director Matt Tate gave the following staff presentation:

The Atlanta Botanical Garden is proposing to annex 17.032± acres and rezone 20.695± acres with a zoning of Planned Unit Development (P-U-D). The properties are located west of Cleveland Highway and the surrounding uses include property owned by the Atlanta Botanical Gardens, single-family homes, apartments and various office, retail and services off of Cleveland Highway. The parcels to be annexed are part of a larger unincorporated island zoned Residential-I (R-I) in Hall County which includes 18 parcels totaling 10.2± acres and all of Gary Street and part of Randall Street just west of Lake Hill Drive. The second tract to be annexed includes two parcels totaling 6.8± acres located at the end of Barrett Street and on the northside of Riverbend Circle. The properties to be rezoned consist of a 13.6± acres tract zoned General Business (G-B) located on the west side of Lake Hill Drive and a 7.0± acres tract zoned Residential-II (R-II) located at the end of Roper Hill Road. The intent is to combine all of the properties with the adjacent 167.99± acres ABG campus which was originally annexed in 2003. Presently, the existing Atlanta Botanical Gardens campus includes a 2,000 seat amphitheater, visitor center, greenhouse, numerous gardens, exhibits and parking. The proposal includes previously approved uses/facilities and additional parking, access and a 30,000 square foot future event center. As well, the long term plan includes providing access to Roper Hill Road.

It is staff's opinion the proposal is consistent with the Comprehensive Plan. The subject property is located both within the *Parks/Recreation/Conservation* land use category and the *Low- Medium Density Residential* land use category and within the *Limestone Medical Corridor* character area and the *Traditional Neighborhoods* character area which supports parks and recreation facilities, permanently designated open space, and conservation areas, including buffers also along waterways and other environmental features.

The Planning Division staff is recommending **conditional approval** of the annexation and rezoning request based on the Comprehensive Plan and the adjacent mixture of uses.

**Applicant Presentation:** **Bradley Dunckel**, Rochester & Associates, 425 Oak Street stated also present is Art Fix from Atlanta Botanical Garden and they will be glad to answer any questions.

**OPPOSE:** **Alex Mathes** 1532 Enota Avenue, stated he lives in the Cry Creek subdivision on the eastern portion of the 168 acres which backs up to the alternative access area. He said after researching online for information, read the applicant's narrative and believes it seemed to be recycled from phase one of the original Botanical Garden and offered no specific information as to the future plans of the alternative access, specifically the 7.07 acres to be rezoned. Mr. Mathes requested the applicant provide information regarding rezoning area which is on the back of his property, is very steep, rugged and are two perennial streams that flows directly into Cry Creek. He said that he hopes the applicant will be requesting stream variances from EPD for any type of construction over the streams. Mr. Mathes hopes the applicant will reduce the footprint and understands they are a membership driven

conservation organization and generate an enormous amount of money, and hopes they do their due diligence. Also, he hopes they work with adjacent land owners to minimize disturbance such as a gated road, install nighttime lights so there are no illuminating lights in his back yard, and hopes the gardens will be forthcoming and transparent about potential future uses. He stated it is a large tract close to the city of Gainesville, Lake Lanier and residential areas, needs a fence enclosure to keep out deer and large mammals. He stated concern for large mammals being pushed out into adjacent neighborhoods and possible a strike hazard onto Highway 129 causing risk to the public. He stated to recap he hopes the applicant to be more forthcoming of proposed actions.

**Alison Toller**, 1531 Enota Avenue, stated she lives on the cul-de-sac of the property to be rezoned and reason for purchasing her house was it is on a quiet and protected street, one street subdivision and near Enota Elementary School. She said the Botanical Gardens is behind her property and understood would likely always remain green space and more reason to buy the property. Mrs. Toller's concern was the rezoned property and creating a road, bringing a public area into their backyard, and the use of the road has not been disclosed. She said currently there is only deer and kids playing in the back yard. Mrs. Toller's request is to deny the rezoning request 7.07 acres or table until there are more specific plans such as traffic level, what it might look like and could have a realistic expectation as to the road and purpose of it, if it would be heavily traveled. She said it is not in keeping with the neighborhood and has concerns of devaluation of their property.

**PLANNING AND APPEALS BOARD COMMENTS:** Chairman Carter stated the property to be rezoned is currently zoned R-II which is multi-family zoning in the City of Gainesville and could allow for apartments to be placed on the property. Chairman Carter stated the concerns were Cry Creek, potential road/sidewalk, streams, EPD, stream variances, gates and lights were some of them.

**REBUTTAL: Mr. Dunckel** stated changing from a master plan to a land development permit plan some details will be addressed and worked out at that time. He stated there are aware of stream buffers which will be avoided and will put the road at a minimal 75-feet away from the property line that forms the back of Mr. Mathes property. He said there might be topography challenges and understands the road will only be used for event situations giving a back access for some of the traffic in the other direction. He stated there are no plans to further develop the green space, bulk of the property and the organization is conservation and education focused. Mr. Dunckel believes the purchase of the properties will allow the botanical garden to place the parking in an area that has been previously developed either partially or fully developed before. He said they are trying to avoid any large scale disturbance like a parking lot into the main area of the garden.

**Art Fix**, 1345 Piedmont Road, stated he is the Atlanta Botanical Garden Chief Operating Officer and the plan is incorporation into the city and have the same zoning classification. Mr. Fix said the vision short-term and long-term is to provide approximately 300 parking spaces in the first phase. He stated the second phase would include an additional 300 spaces on the northern section where houses are currently located and provide close to 700 parking spaces total. He said the amphitheater holds approximately 2,000 people so should allow sufficient quantity to allow access to the venue with egress using Lake Hill Road, parking will be closed off from Lake Hill Road at the entrance drive. He said the parking will be closed off from Lake Hill during normal hours but only used as egress during concert activity. Mr. Fix said the normal traffic flow will continue to be Sweetbay Drive, the main entrance. He stated at some point in time, they might consider an eatable garden/children's garden to teach about plants

which could be ten to fifteen years from now. He said Rochester & Associates did include some of those elements for the big picture and to think ahead but not in the short-term plan.

**There was a motion to recommend conditional approval of the annexation request with a zoning of Planned Unit Development (P-U-D).**

**Conditions**

1. The development plan and architectural plan for the proposed access, parking lot and event center must be reviewed and approved by the Community and Economic Development Director prior to the issuance of a permit.
2. A Uniform Sign Plan as identified within Section 9-18-7-4 of the Unified Land Development Code shall be required from the developer and is subject to approval by the Community and Economic Development Director. All signs shall be located outside of utility areas and shall not block visibility of vehicular traffic.
3. The proposed parking, event center and all other facilities within the subject property shall be sufficiently screened from the adjacent residential uses. The vegetated buffer areas shall be a minimum of 50-foot wide and the location, size and type of vegetation shall be approved by the Community and Economic Development Director.
4. All access point design for the subject property shall require review and approval by the Gainesville Public Works Department Director in conjunction with the Georgia Department of Transportation if required. All required access/traffic/sidewalk improvements associated with the proposal shall be at the full expense of the property owner/applicant. There shall be no vehicular access allowed from Barrett Street or Riverbend Circle.
5. An updated as-built survey/plat combining the subject property and adjacent properties owned by applicant shall be required.

Motion made by Board Member Martin

Motion seconded by Board Member White

**Vote – 6 favor, 1 absent (Delgado)**

- 3) Request from **Caballero Holdings, LLC** to annex a total of 140.77± acres to include a 44.91± acres tract located at the northeast side of the terminus of Floyd Road; a 80.8± acres tract located on the north side of Eberhart Cemetery Road; a 9.467± acres tract, 4.397± acres tract and a 1.996± acres tract located southwest of the intersection of Jesse Jewell Parkway and Old Cornelia Highway (a/k/a **0 Eberhart Cemetery Road; 2465 Floyd Road, SE; 2166, 2170 and 2210 Old Cornelia Highway**) and to establish zoning as Planned Unit Development (P-U-D).

Ward Number: Three

Tax Parcel Number(s): 15-022-000-001B, 003 (Part); 15-033B-000-022, 024 and 026A

Request: Master planned mixed-use development

Chairman Carter stated Deputy Director Tate received notification the applicant would like to table their request to the December 14, 2021, Planning and Appeals Board meeting.

**There was a motion to table the annexation request to the December 14, 2021, Planning and Appeals Board meeting.**



Motion made by Board Member Thompson  
Motion seconded by Board Member Simmons  
**Vote – 6 favor, 1 absent (Delgado)**

## **B. Rezoning Requests**

- 1) Request from the **Atlanta Botanical Garden, Inc.** to rezone a total of 20.695± acres to include a 13.625± acres tract located on the west side of Lake Hill Drive, having road frontage on the north side of Barrett Street; and a 7.07± acres tract located on the northwest side of the cul-de-sac of Roper Hill Road (a/k/a **103 Gary Street, NE; 1662 Roper Hill Road, NE**) from Residential-II (R-II) and General Business (G-B) to Planned Unit Development (P-U-D).  
Ward Number: Two  
Tax Parcel Number(s): 00-093-001-042; 01-084-004-005  
Request: Atlanta Botanical Garden expansion

**There was a motion to recommend conditional approval to rezone the subject property from Residential-II (R-II) and General Business (G-B) to Planned Unit Development (P-U-D) with the following conditions:**

### **Conditions**

1. The development plan and architectural plan for the proposed access, parking lot and event center must be reviewed and approved by the Community and Economic Development Director prior to the issuance of a permit.
2. A Uniform Sign Plan as identified within Section 9-18-7-4 of the Unified Land Development Code shall be required from the developer and is subject to approval by the Community and Economic Development Director. All signs shall be located outside of utility areas and shall not block visibility of vehicular traffic.
3. The proposed parking, event center and all other facilities within the subject property shall be sufficiently screened from the adjacent residential uses. The vegetated buffer areas shall be a minimum of 50-foot wide and the location, size and type of vegetation shall be approved by the Community and Economic Development Director.
4. All access point design for the subject property shall require review and approval by the Gainesville Public Works Department Director in conjunction with the Georgia Department of Transportation if required. All required access/traffic/sidewalk improvements associated with the proposal shall be at the full expense of the property owner/applicant. There shall be no vehicular access allowed from Barrett Street or Riverbend Circle.
5. An updated as-built survey/plat combining the subject property and adjacent properties owned by applicant shall be required.

Motion made by Board Member Martin  
Motion seconded by Board Member Thompson  
**Vote – 6 favor, 1 absent (Delgado)**

- 2) Request from **Koch Foods of Gainesville, LLC** to rezone a 0.55± acre tract located between Davis Street and Industrial Boulevard, southwest of Queen City Parkway (a/k/a

**911, 913 and 919 Davis Street, SW; 950 Industrial Boulevard, SW) from Residential-II (R-II) to Heavy Industrial (H-I).**

Ward Number: Four

Tax Parcel Number(s): 01-030-009-001 and 002; 00-030-009-002 (Part)

Request: Poultry processing plant expansion

**There was a motion to recommend conditional approval to rezone the subject property from Residential-II (R-II) to Heavy Industrial (H-I) with the following conditions:**

**Conditions**

- 1. All access point design for the subject property shall require review and approval by the Gainesville Public Works Department Director. All required access/traffic/sidewalk improvements associated with the proposal shall be at the full expense of the property owner.**
- 2. The proposed redevelopment of the subject property shall meet the Gainesville Unified Land Development Code standards including but not limited to access, parking, stormwater, landscaping, fencing and signage.**
- 3. An updated as-built survey/plat combining the subject property and adjacent properties owned by applicant shall be required.**

Motion made by Board Member Thompson

Motion seconded by Board Member Simmons

**Vote – 6 favor, 1 absent (Delgado)**

**C. Zoning Amendment Request**

- 1) Request from **Caballero Holdings, LLC** to amend an existing Planned Unit Development (P-U-D) zoning totaling 981.661± acres located east of Lanier Parkway (I-985), south of the intersection of Old Cornelia Highway and Dana Drive, south of Floyd Road and east of its terminus, having road frontage on the east side of Lenox Drive (a/k/a **0, 2490 and 2544 Floyd Road, SE; 0 Lenox Drive, SE; 0 Old Cornelia Highway, SE**).**

Ward Number: Three

Tax Parcel Number(s): 15-021-000-164; 15-022-000-003M, 004, 034 and 086;  
15-033-000-001

Request: Master planned mixed-use development

Chairman Carter stated Deputy Director Tate received notification the applicant would like to table their request to the December 14, 2021, Planning and Appeals Board meeting.

**There was a motion to table the zoning amendment request to the December 14, 2021, Planning and Appeals Board meeting.**

Motion made by Board Member Martin

Motion seconded by Board Member White

**Vote – 6 favor, 1 absent (Delgado)**

**D. Code Amendment Request**

- 1) Request from the **City of Gainesville** to amend the Unified Land Development Code for the City of Gainesville, Georgia to amend Table 9-5-1 of Article 9-5 entitled "Permitted and Special Uses for Residential Zoning Districts"; to amend Table 9-6-1 of Article 9-6 entitled "Permitted and Special Uses for Nonresidential Zoning Districts"; to amend Section 9-10-2-5 entitled "Single-Family Attached Dwelling (Fee-Simple Townhouse); to amend Section 9-10-3-5 entitled "Private Swimming Pools"; to amend subsection (c) of Section 9-21-1-12 entitled "Recommendations on text amendments"; to amend subsection (d) of Section 9-22-2-18 entitled "Action by Governing Body".

Chairman Carter stated Deputy Director Tate would like to withdraw the request at this time.

**There was a motion to approve the withdrawal of the code amendment request.**

Motion made by Board Member Fleming  
Motion seconded by Board Member Martin  
**Vote – 6 favor, 1 absent**

#### **ADJOURNMENT**

**There was a motion to adjourn the meeting at 6:08 p.m.**

Motion made by Board Member Martin  
Motion seconded by Board Member White  
**Vote – 6 favor, 1 absent**

Respectfully submitted,

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Doug Carter, Chairman

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Gwen Fleming, Recording Secretary

**Date Submitted:** 11/29/2021

**Presenter:** Matt Tate

**Item of Business:** Request from **Caballero Holdings, LLC** to annex a total of 140.77± acres to include a 44.91± acres tract located at the northeast side of the terminus of Floyd Road; a 80.8± acres tract located on the north side of Eberhart Cemetery Road; a 9.467± acres tract, 4.397± acres tract and a 1.996± acres tract located southwest of the intersection of Jesse Jewell Parkway and Old Cornelia Highway (a/k/a **0 Eberhart Cemetery Road; 2465 Floyd Road, SE; 2166, 2170 and 2210 Old Cornelia Highway**) and to establish zoning as Planned Unit Development (P-U-D).  
Ward Number: Three  
Tax Parcel Number(s): 15-022-000-001B, 003 (Part); 15-033B-000-022, 024 and 026A  
Request: Master planned mixed-use development

**Meeting Date:** 12/14/2021

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**Purpose of Request:**

The applicant is proposing to annex a 140.77± acres tract with a zoning of Planned Unit Development (P-U-D) for a mixed-use community. The property includes 5 parcels which are zoned Agricultural Residential-IV (AR-IV), Agricultural Residential-III (AR-III) and Residential-II (R-II) within the County.

The proposed development known as "Gainesville Township" will include a total of 1,122 acres, 1,414 single-family detached homes, 311 townhomes, 640 multi-family units and up to 75,000 square feet of commercial space. The residential uses include single-family homes ranging from a minimum of 1,200 to 1,800 square feet; townhomes ranging from a minimum of 1,100 to 1,400 square feet; and multi-family. The development will contain a variety of different housing types and sizes and price points for all ages. A variety of community amenities are planned and 645± acres will remain as open space. Two points of access are proposed from Old Cornelia Highway. The primary access will be from the new road serving the future "The Coop" Athletic Complex. All streets that are not gated are intended to be maintained by the City. Solid waste pick-up will be provided by the City.

The property is located within the North Oconee Water Supply Watershed Protection Overlay Zone. The surrounding uses include undeveloped land, the future Melvin Cooper "The Coop" Athletic Complex, single-family homes, church, gas station, package store, Rabbit Town Café, Avita Behavioral Health Facility and White Sulphur Elementary School.

**History/Background:**

This request was tabled at the November 9, 2021 PAB meeting at the request of the applicant.

**Facts & Issues for Consideration:**

**Department Recommendation:**

Planning staff recommended approval with twenty-one conditions. See the Staff Recommendation report for details.

**Department Director:**

Rusty Ligon

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**If funding is involved, are funds approved within the current budget?**

N/A

**Amount Requested:**

**Source of Funds:**

**Finance Comments:**

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**Administrative Comments:**

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ATTACHMENTS:

| Description                                                                       |                               | Type            |
|-----------------------------------------------------------------------------------|-------------------------------|-----------------|
|  | Staff Recommendation Report   | Report          |
|  | Location Maps                 | Backup Material |
|  | Annexation parcels            | Backup Material |
|  | Narrative - Design Guidelines | Backup Material |
|  | Site Plans                    | Cover Memo      |
|  | 50' Buffer Exhibit            | Backup Material |
|  | Traffic Study                 | Backup Material |
|  | GCSS BOE letter               | Backup Material |

**GAINESVILLE PLANNING and APPEALS BOARD  
STAFF RECOMMENDATION**

**Applicant** ..... Caballero Holdings, LLC  
**Property Owners** ..... Gainesville Vision, LLC  
**Location** ..... 0 Eberhart Cemetery Road; 2465 Floyd Road, SE; 2166, 2170 and 2210 Old Cornelia Highway; 0, 2490 and 2544 Floyd Road, SE; 0 Lenox Drive, SE; 0 Old Cornelia Highway, SE  
**Request** ..... Annex with P-U-D zoning  
 Amend existing P-U-D zoning  
**Total Acres** ..... Annexation: 140.77± acres  
 P-U-D Zoning Amendment: 981.661± acres  
**Ward** ..... Three  
**Proposed Use** ..... Master planned mixed-use community  
**Planning Division Staff Recommendation** ..... **Approval, with conditions**  
**Date** ..... December 14, 2021

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▪ **Applicant's Proposal and Background Information**

The applicant is proposing a master planned mixed-use community consisting of 1,122.43± acres known as “Gainesville Township”. The proposal includes annexing 140.77± acres with a zoning of Planned Unit Development (P-U-D). These properties consist of five parcels which are zoned Agricultural Residential-IV (AR-IV), Agricultural Residential-III (AR-III) and Residential-II (R-II) within the County.

The proposal includes amending an existing 981.661± acres tract zoned Planned Unit Development (P-U-D) consisting of six parcels. This property was originally annexed in 1998 and was known as “Shawshank” which included a golf course community. In 2001 additional acreage was annexed for what is known as “Sussex” that removed the golf course and increased the overall number of residential units. Below is a snapshot comparison of the current and proposed plan.

|                         | Current Plan | Proposed Plan | Difference | Proposed Rental          |
|-------------------------|--------------|---------------|------------|--------------------------|
| Acreage                 | 981.6        | 1,122         | +141       |                          |
| Single-Family Homes     | 977          | 1,414         | +437       | 300 (21% of Sf)          |
| Townhomes               | 197          | 311           | +114       | 233 (75% of Th)          |
| Apartments              | 1,096        | 640           | -456       | 640 (100% of Apts.)      |
| Total Residential Units | 2,270        | 2,365         | +95        | 1,173 Total rental units |
| Overall Density         | 2.35 du/acre | 2.11 du/acre  | - 0.24     |                          |
| Open Space              | 548.5 acres  | 645.3 acres   | +96.8      |                          |
| Commercial              | 24,000 sf    | 75,000 sf     | +51,000 sf |                          |

The development standard for each proposed use are listed below:

| <b>Single-family Detached Homes</b>                                             |           |          |          |          |
|---------------------------------------------------------------------------------|-----------|----------|----------|----------|
| Number of Units                                                                 | 1,414     |          |          |          |
| Number of Rental Units                                                          | 300 (21%) |          |          |          |
| Lot Width                                                                       | 40'       | 50'      | 60'      | 95'      |
| Minimum Lot Size                                                                | 4,000 SF  | 5,000 SF | 6,000 SF | 9,000 SF |
| Minimum Front Yard Setback                                                      | 20'       | 20'      | 20'      | 20'      |
| Minimum Side Yard Setback                                                       | 5'        | 5'       | 5'       | 5'       |
| Minimum Rear Yard Setback                                                       | 15'       | 15'      | 15'      | 15'      |
| Exterior Buffer                                                                 | 25'       | 25'      | 25'      | 25'      |
| Minimum Building Separation                                                     | 10'       | 10'      | 10'      | 10'      |
| Minimum SF Detached Home Width                                                  | <30'      | <40'     | <50'     | <85'     |
| Minimum Heated Square Feet per Home                                             | 1,200 SF  | 1,300 SF | 1,500 SF | 1,800 SF |
| Maximum % of SF Detached Lot Type                                               | 40%       | 60%      | 80%      | No Max   |
| The combined number of 40' and 50' wide lots shall not exceed 65% of the total. |           |          |          |          |

| <b>Single-family Attached Town Homes</b> |           |          |
|------------------------------------------|-----------|----------|
| Number of Units                          | 311       |          |
| Number of Rental Units                   | 233 (75%) |          |
| Lot Width                                | 20'       | 24'      |
| Minimum Lot Size                         | 2,000 SF  | 2,000 SF |
| Minimum Front Yard Setback               | 15'       | 20'      |
| Minimum Side Yard Setback                | 0'        | 0'       |
| Minimum Rear Yard Setback                | 0'        | 15'      |
| Exterior Buffer to Residential           | 25'       | 25'      |
| Minimum Building Separation              | 20'       | 20'      |
| Minimum Heated Square Feet per Home      | 1,100 SF  | 1,400 SF |

| <b>Multi-family Apartments</b> | Garden Style | Breezeway Style | Manor | Cottages |
|--------------------------------|--------------|-----------------|-------|----------|
|--------------------------------|--------------|-----------------|-------|----------|

|                            |     |     |     |     |
|----------------------------|-----|-----|-----|-----|
| Minimum Front Yard Setback | 30' | 30' | 10' | 10' |
| Minimum Side Yard Setback  | 20' | 20' | 10' | 5'  |
| Minimum Rear Yard Setback  | 20' | 20' | 10' | 10' |
| Building Separation        | 20' | 20' | 20' | 10' |
| Maximum Stories            | 4   | 4   | 3   | 2'  |
| Maximum Height             | 60' | 60' | 45' | 35' |

|                      |                                                                                                                                                                                                                                                                                      |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Commercial</b>    |                                                                                                                                                                                                                                                                                      |
| Gross Square footage | 75,000 sf                                                                                                                                                                                                                                                                            |
| Uses                 | Includes those uses allowed within the Neighborhood Business (N-B) zoning district, in addition to drive-thru restaurants, climate controlled storage facility, institutional residential living and care facilities serving more than 18 persons at no more than 22 units per acre. |
| Maximum Stories      | 3                                                                                                                                                                                                                                                                                    |
| Parking Ratio        | Per the Unified Land Development Code                                                                                                                                                                                                                                                |

### Access

A total of two points of access are proposed from Old Cornelia Highway. The primary access Driveway #1 will extend off the new road planned for the future "The Coop" Athletic Complex. A future Driveway #2 is proposed off of the older segment of Old Cornelia Highway next to the proposed commercial property. In addition, a driveway restricted for emergency purposes may be considered to the south off of Floyd Road. All streets are planned to be public and maintained by the City. Internal drives/streets that are gated for the townhomes or multi-family apartments will be private. Solid waste pick-up will be provided by the City as well except for the apartments and commercial uses.

### Amenities & Signage

A Central Amenity Center is proposed off of the main entrance road to the community which will include a clubhouse, swim center with lap pool with children's play area, tennis center with lighted courts, pickle ball courts, great lawn with pavilion for outdoor functions, mail kiosk and dog park, various pocket parks, disc golf, extensive trail, sidewalk and multi-use path system. Other satellite amenities may include boat/RV storage, bicycle racks, small open space cabana's with neighborhood size pools.

The project gateway entrance will include landscape, hardscape feature, signage, monumentation and lighting establishing a sense of place and arrival point. Signage will contain additional identification of "The Coop" sports complex. Smaller scale signage and monumentation elements may be placed throughout the development similar in style to the major project identification. These may be placed at the secondary access points on Old Cornelia Highway or in interior streets within the development. A maximum of two billboards, which may include electronic billboards on the property, are proposed along I-985 frontage. These billboards shall not exceed 440 square feet and 45 feet in height. All billboards are limited to project related content and must be removed within seven years of erection or 95% of project build-out, whichever occurs last.



▪ **Adjacent Land Use and Zoning**

| Location | Use                                                                                                                 | Zoning                                                                                                                                                                   |
|----------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| North    | Future “The Coop” Athletic Complex<br>White Sulphur Elementary School;<br>Single-family homes<br>Abandoned Car Wash | Planned Unit Development (P-U-D) -City<br>Agricultural Residential-III (AR-III) -County<br>Agricultural Residential-IV (AR-IV) -County<br>Highway Business (H-B)- County |
| South    | Single-family homes<br>Mobile home park<br>Vacant Land                                                              | Residential-I (R-I) -County<br>Residential-II (R-II) -County<br>Agricultural Residential-IV (AR-IV) -County                                                              |
|          | Single-family homes<br>Vacant land                                                                                  | Planned Unit Development (PUD) -City<br>Residential-I-A (R-I-A) -City                                                                                                    |
| East     | Masons Lodge<br>Single-family homes<br>Mobile Home Park                                                             | Highway Business (H-B) -County<br>Agricultural Residential-III (AR-III) -County                                                                                          |
| West     | Single-family Homes & I-985                                                                                         | Agricultural Residential-IV (AR-IV) -County<br>Residential-II (R-II) - County                                                                                            |
|          | Lenox Park                                                                                                          | Planned Unit Development (P-U-D) -City                                                                                                                                   |

The property is located within the North Oconee Water Supply Watershed Protection Overlay Zone and other surrounding uses include Rabbit Town Salvage, Rabbit Town Café and the Avita Behavioral Health Facility.

▪ **Traffic Summary**

A Traffic Impact Study was conducted for the proposed development on April 13, 2021. A brief summary of the findings is provided below. The entire study is provided as part of the supporting documents.

Studied intersections:

1. Old Cornelia Highway and Dana Drive (unsignalized)
2. Old Cornelia Highway and White Sulphur Elementary (unsignalized)
3. Old Cornelia Highway and Oconee Circle (unsignalized)
4. Driveway #1 at Old Cornelia Highway
5. Driveway #2 at Old Cornelia Highway
6. Driveway #3 at Floyd Road

A background traffic growth rate of 1.5% was established for each year based on the population estimated growth rate. TIS anticipated three phases completed by the year 2035 which includes the proposed project and the adjacent planned “The Coop” Athletic Complex. The estimated trips through the year 2035 include 18,535 daily trips, 349 AM Peak Hour trips entering and 1,032 trips exiting, 1,138 PM Peak Hour trips entering and 683 trips exiting.

Based on the findings in this study, any improvements implemented at Driveway #1 on Old Cornelia Highway could not be implemented without adversely affecting the adjacent intersections. Therefore, three alternatives were evaluated that would also address the operation of White Sulphur Elementary School and Dana Drive. It is recommended that the roadway of Old Cornelia Highway be widened to four lanes to accommodate for these Alternatives. A long range project is currently planned for widening, but the background growth of the roadway coupled with the development volume exacerbate the need for the project. The developer should work with

GDOT for widening project, while the developer will be solely responsible for the selected Alternative. The intersection of Old Cornelia Road and Oconee Circle is currently experiencing unacceptable LOS before adding the project volumes, and improvements should be implemented by local officials. Alternative improvements were identified which accounted for the current Old Cornelia Highway conditions and a future proposed 4-lane widening.

- 1) The first alternative evaluated at the site driveway #1 (located between White Sulphur Elementary School and Dana Drive) is a minor street stop control with added dedicated left and right turn lanes into and out of the development. In both scenarios the northbound left exiting turn lane did not operate an acceptable capacity level.
- 2) The second alternative at site driveway #1 includes a traffic signal with the additional turn lanes. The existing two-lanes with a traffic signal did not perform at acceptable capacity levels during the PM peak hours for the west bound and north bound lanes. The multi-lane traffic signal showed the east, west and north bound turning movements operating at acceptable capacity levels.
- 3) The third alternative at site driveway #1 includes a single lane and a multi-lane roundabout. The multi-lane roundabout showed the east, west and north bound turning movements operating at acceptable capacity levels.
- 4) Other acceptable alternatives include allowing Dana Drive and White Sulphur Elementary School to access a signalized development Driveway #1 at a 4-lane Old Cornelia Highway. A dumbbell shaped roundabout consisting of two roundabouts close together at the development Driveway #1 and the White Sulphur Elementary School entrances with a consolidated driveway of Dana Drive and Driveway #1. An elliptical (elongated) roundabout expanding to each intersection with White Sulphur Elementary Driveway, Driveway #1 and Dana Drive.

#### ▪ **Georgia Mountains Regional Commission Summary**

The Georgia Mountains Regional Commission (GMRC) provided a regional review of DRI Project #3471 and has determined the proposed action does **NOT** present any potential adverse inter-jurisdictional impacts. However, the GMRC advises that a 3<sup>rd</sup> access point be made mandatory, and that a 4<sup>th</sup> should be explored if possible due to the size of the development. In addition, best environmental practices are encouraged regarding stormwater management given the property is located within the North Oconee Watershed Protection Zone.

#### ▪ **Other Departmental Comments**

The Georgia Department of Transportation states the I-985 (Exit 24) interchange has dual turn lanes for both the on and off ramps. Signal timing will need to be monitored on the SR 369 corridor as the area develops. No further coordination is required.

Coordination with the Gainesville Public Works Department will be required for the proposed development access plan. Solid waste will be provided for the single-family lots and possibly the townhomes depending on street access and the ability for trucks to turn around. Solid waste for the multi-family apartments, amenity areas and retail businesses will be handled privately.

The Gainesville City School System submitted an official letter in response to the request which is included with the documents. In summary, the School Board views the development as too massive, too dense and too populated for the school systems extended, planned growth plans. In addition, consideration should be given for the following:

- Confirming the location of a suitable 20+ acres school site;

- Developer-paid traffic signals at each proposed entrance for the safety of vehicles and/or buses transporting students;
- Bus pull-off aprons in each interior pod artery;
- Prohibited weekday parking in cul-de-sacs to ensure safe and smooth bus flow;
- Honoring, in a separate certified communique to the school system, the 20-acres site proposed for an elementary school; and
- Community information sessions in the Sherwood Heights, New Holland/Fair Street and Morningside Heights neighborhoods.

#### ▪ **Zoning History**

*The following zoning actions have taken place in the immediate area during the last ten years:*

**2020** - A request by the City of Gainesville to annex 4.4± acres and rezone 1,320± acres located at 0 and 2221 Smallwood Road; 2306 and 2312 Athens Highway; 1701 Fulenwider Road, SW with a zoning of Planned Unit Development (P-U-D) for a business park was approved with conditions.

**2019** - A request by Integrity Development Group, LLC to annex a 219.65± acres tract located at 2242 Gaines Mill Road; 2579 and 2581 Gillsville Highway with a zoning of Planned Unit Development (P-U-D) zoning for a 375 lot subdivision was approved with conditions.

**2018** - A request by Geosam Capital US (Atlanta), LP to amend an 85.45± acres portion of a 220± acres tract located at 0 Gaines Mill Road zoned Planned Unit Development (P-U-D) for 100-single-family homes was approved with conditions.

**2017** – A request by Keel Property Management, LLC to annex a 6.32± acres tract with a zoning of General Business (G-B) located at 0 White Sulphur Road was conditionally approved for restaurant, retail and a carwash.

**2017** – A request by the City of Gainesville to rezone 53.177± acres located at 1514, 1515, 1545, 1560 and 1581 Community Way from Residential-II (R-II) to Office and Institutional (O-I) zoning was approved for existing uses and for future professional office purposes.

**2016** – A request by Timothy Bullard to annex a 20.417± acres tract located at 1582 and 1586 Pine Valley Road was denied for a 240-unit apartment complex with Residential-II (R-II) zoning.

**2014** - A request by Alcovy-20, Inc. to amend a 26.10± acre tract located at 0, 2108 and 2125 Wilson Drive zoned Planned Unit Development (P-U-D) for a 55-lot single-family subdivision was approved with conditions.

**2012** - A request by Gainesville Truck Center to annex a 14.03± acres tract located at 2145 Athens Highway with a zoning of Light Industrial (L-I) for sewer for an existing truck center was approved.

**2012** – A request by Pacolet Milliken Enterprises, Inc. to annex a 68.223± acres tract located at 601 White Sulphur Road was approved with conditional Planned Unit Development (P-U-D) zoning for a mixed-use development.

#### ▪ **Staff Analysis**

**(1) Is the proposed use suitable in view of the zoning and development of adjacent and nearby property?**

Due to the size of the property, there are numerous adjacent uses and parcels that border the subject property. The surrounding land use is primarily agricultural and low density housing but

has never taken on an established land use pattern. The adjacent properties consist of a mixture of agriculture, residential, and office/commercial both in the city and county. Limited commercial and office uses are located along Old Cornelia Highway which has experienced very slow growth over the years. These properties are zoned Planned Unit Development (P-U-D), Agricultural Residential-III (AR-III), Agricultural Residential-IV (AR-IV), Residential-I-A (R-I-A), Residential-I (R-I) and Highway Business (H-B).

**(2) Will the proposed use adversely affect the existing use or usability of adjacent or nearby property?**

The proposed use will change the living conditions of the surrounding residential uses with an increase of traffic and demand on public services. Currently, the property is approved for 2,270 residential units, 24,000 square feet of commercial space and 548.5± acres of green space. The revised proposal includes the annexation of an additional 141.0± acres for 2,365 residential units, 75,000 square feet of commercial space and 645.3± acres of green space. The proposal anticipates the development will be built-out over a period of 10 years which will help integrate the residential growth.

**(3) Is the proposed use compatible with the purpose and intent of the Comprehensive Plan?**

The Future Development Map for the City of Gainesville places the property within the *Low-Medium Density Residential* land use category, which includes areas containing or planned for single-family detached or semi-detached housing at densities ranging from two to four dwelling units per acre. The proposal has a density of 2.11 dwelling units per acre for the 1,122 acres. The currently approved mixed-use use for the property has a density of 2.35 dwelling units per acre.

According to the Character Area map for the City of Gainesville, the subject property is located within the *Suburban Residential* Character Area which includes low-density residential, medium-density residential, multi-family residential, public / institutional, commercial, and parks / recreation / conservation and mixed-use. The goal of this character area is to preserve older, stable residential subdivisions and encourage newer projects with smaller lot sizes, pedestrian infrastructure, and buildings patterned after traditional local housing, possibly containing a small neighborhood-serving "village center". Mixed-use neighborhood design is desired but not required. In areas where natural features or sensitive environments are important, cluster housing or conservation subdivision design may be appropriate.

**(4) Are there substantial reasons why the property cannot or should not be used as currently zoned?**

The majority of the property is zoned Planned Unit Development (P-U-D). The applicant is proposing to amend the existing P-U-D and to annex an additional 141± acres with a zoning of P-U-D. The proposal includes a mixture of housing types and development standards which are currently not approved within the current P-U-D zoning or within the unincorporated county zoned portion of property. Therefore, the applicant is proposing to annex to utilize City water and sewer services.

The proposed zoning of Planned Unit Development (P-U-D) is considered a site-specific zoning intended to provide for some flexibility of land uses that should include unique and innovative development of the land through a unified site design in order to meet the objectives of the comprehensive plan.

**(5) Will the proposed use cause an excessive or burdensome use of public facilities or services, including but not limited to streets, schools, water or sewer utilities, and police or fire protection?**

Since the land is undeveloped, the proposal will increase the amount of traffic and turning movements generated from the site at the two proposed driveway locations. The estimated trips through the year 2035 include 18,535 daily trips, 349 AM Peak Hour trips entering and 1,032 trips exiting, 1,138 PM Peak Hour trips entering and 683 trips exiting. According to the traffic impact study, the widening of Old Cornelia Highway with dedicated turn lanes and a traffic signal or roundabout is necessary to keep traffic flow at an acceptable level for the project build out.

The applicant will be required to coordinate with Gainesville, Hall County and GDOT regarding any access and driveway improvements. According to the "9<sup>th</sup> Edition Trip Generation Manual" as published by the Institute of Transportation Engineers, the estimated trips for a proposed retail center are 266± two-way trips per weekday and 41 A.M. / 30 P.M. two-way peak hour trips.

Water and sewer capacity are available to serve the development. Existing public safety services currently respond to the adjacent and nearby properties. Gainesville Fire Station #2 located off of Cleveland Highway is located approximately 3.5 miles from the property. As well, Hall County Fire Station #7 off of East Crescent Drive is located approximately 1.5 miles away. The current approved use and the amended proposal reserves two acres within the development for a future public safety facility.

The proposal includes a total of 2,365 residential units which will impact the enrollment of the City School system. It is undetermined how many new school aged children will live within the development given the mixture of housing types. According to the School System, the development is too massive, too dense and too populated for the school systems extended, planned growth plans. The development will be phased over a period of 10 years which should help give school system additional time to plan for additional enrollment. In addition, the applicant proposes to donate twenty acres anywhere within the development except for phase 1 for a future school site, or the School Board may elect to receive an amount equal to the Developer's per acre purchase price for 20 acres paid in two installments.

**(6) Is the proposed use supported by new or changing conditions not anticipated by the Comprehensive Plan or reflected in the existing zoning on the property or surrounding properties?**

The subject property is supported by new and changing conditions in the surrounding area. While significant development has occurred west of Exit 24/ I-985 within the New Holland area, the growth patterns east of the interchange have changed slowly from rural to suburban which was anticipated by the Comprehensive Plan.

**(7) Does the proposed use reflect a reasonable balance between the promotion of the public health, safety, morality, or general welfare and the right to unrestricted use of property?**

The proposed annexation and P-U-D amendment request is an extension of the previously approved zoning plan which proposes a net increase of 141.0± acres of land, 96.8± acres of green space, 95 additional residential units and 51,000 square feet of commercial space. The proposal, with the recommended conditions, appears to promote a reasonable balance between the interests of the city, the property owner, and neighboring residents and property owners.

▪ **Staff Recommendation**

The Planning Division staff is recommending **conditional approval** of this annexation and P-U-D amendment request based on the Comprehensive Plan, the existing approved use for the property and the adjacent mixture of uses.

**Conditions**

1. The development standards within the applicant's narrative, site plans, and architectural renderings shall be made part of the zoning ordinance, and shall be subject to the Community and Economic Development Director approval. Any zoning conditions adopted as part of this zoning ordinance that conflict with the applicant's narrative, concept plan and architectural renderings shall take precedence over the applicant's development standards.
2. The maximum number of single-family detached homes/lots shall be 1,414. The maximum number of single-family attached homes shall be 311. The maximum number of multi-family units shall be 640. The total number of residential units shall not exceed 2,365 units.
3. No more than 300 single-family units (detached and/or attached) and 640 multi-family units shall be rental units for a total of 940 rental units. The multi-family units may be any combination of traditional garden-style apartments, townhomes, manor houses, cottages, and/or carriage houses built within the confines of the multi-family areas.
4. Prior to permits being issued for the residential uses, each contractor/developer shall provide architectural renderings of the proposed single-family detached homes, attached townhomes and multi-family apartments for the review and approval of the Community and Economic Development Department Director.
5. The minimum heated floor space for single-family detached homes shall be as presented in the below table associated with zoning condition number 8. The minimum heated floor space for the attached townhomes shall be 1,100 square feet and 640 square feet for the multi-family units. The single-family detached homes and attached townhomes shall not exceed 3 stories in height. The multi-family apartment buildings shall not exceed 3 stories, although 3 / 4 splits shall be allowed.
6. All exterior wall front, sides, and rear of the single-family detached homes, townhomes, and multi-family units shall consist of a variety of building materials consistent with architectural themes and styles determined by the applicant. Foundation water tables of matching brick or stone material, that also covers all exposed foundation walls, will be used where architecturally compatible. Vinyl siding shall only be permitted on soffit areas.

Other architectural requirements will include:

- Carriage style garage doors with decorative hardware or other embellishments shall be used on all single-family detached homes and townhomes;
- The roofing material used on all single-family detached homes and townhomes shall be 3-tab architectural/dimensional style asphalt shingles or metal as appropriate to the architectural style of each home as determined by the builder.
- All overhangs including gables and side gables will have a minimum of a 12-inch overhang on all sides;
- The developer shall use a variety of techniques to avoid the monotonous appearance of identical single-family detached homes. Such techniques may

employ among others the use of differing front elevations, architectural styles, building exteriors, and other similar techniques so that no single-family detached house is the same as any house directly in front of a single-family detached home or on either adjacent side of a single-family detached home;

- All roofs and gables shall be of a pitch no less than 8/12. This condition shall not apply to dormers, porches, bay windows, and third floor retreats;
- The exterior materials for all homes shall consist of brick, stone, fiber cement siding, cedar shake or wood siding;
- All roof vents, pipes, and other roof equipment (except chimneys) shall be located on the rear elevations and shall be painted to match the color of the roof;
- No above-ground swimming pools shall be permitted;
- No window air conditioning unit may be installed;
- No exterior blank, windowless walls will be constructed;
- If dormers are included, they will not be taller than the main roof;
- All single-family detached house plans will have front or side loaded garages;
- All townhomes will have front or rear entry garages;
- Street lighting will be provided throughout the development;
- All front porches of single-family detached homes shall have a minimum depth of 5';
- Windows are restricted to single hung or double hung windows.

These requirements shall be included in the Covenants to be recorded against the property.

7. Each detached single-family home and townhome shall have, at a minimum, an attached two car garage.
8. Specific development standards for the single-family detached homes shall include the following:

| Lot Width                           | *40'     | 50'      | 60'      | 75'      | 95'      |
|-------------------------------------|----------|----------|----------|----------|----------|
| Minimum Lot Size                    | 4,000 SF | 5,000 SF | 6,000 SF | 7,500 SF | 9,000 SF |
| Minimum Front Yard Setback          | 25'      | 25'      | 25'      | 25'      | 25'      |
| Minimum Side Yard Setback           | 5'       | 5'       | 5'       | 5'       | 5'       |
| Minimum Rear Yard Setback           | 10'      | 10'      | 10'      | 10'      | 10'      |
| Minimum Building Separation         | 10'      | 10'      | 10'      | 10'      | 10'      |
| Maximum Height (Number of Stories)  | 3        | 3        | 3        | 3        | 3        |
| Minimum Heated Square Feet per Home | 1,400 SF | 1,800 SF | 1,800 SF | 2,000 SF | 2,200 SF |
| **Maximum % of SF Detached Lot Type | 15%      | 35%      | 35%      | No Max   | No Max   |

\*40' lots are restricted to age-restricted neighborhoods only.

\*\*Any lot allocation from a smaller category may move to a larger category.

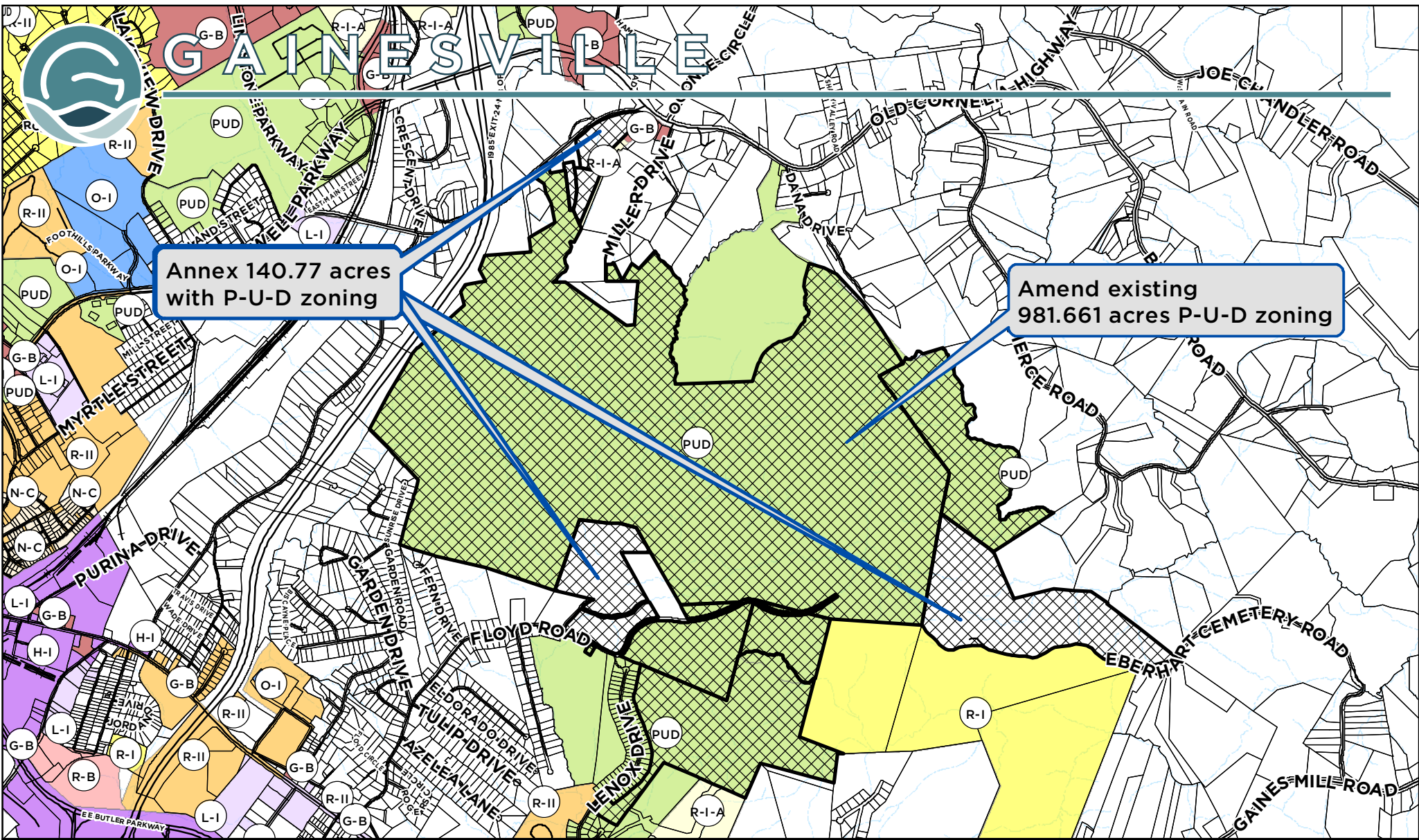
9. The front yard of each lot shall be sodded and planted with at least one 3" caliper in size hardwood tree.

10. The proposed amenities shall be required as shown on the site plan and the pictures shown on pages 10, 14, 15, 16, 17 28, 29, 34, 75, 76, 77, 87, 88 and 89 of the applicant's revised narrative submitted with this application per the approval of the Community and Economic Development Department Director. The amenity area must be started in the first phase of construction. No more than 250 single-family detached homes shall receive a certificate of occupancy (CO) prior to the Central Amenity Center being substantially completed as described on page 37 of the applicant's revised narrative. This shall include at minimum the clubhouse, swim center with lap pool with children's play area, tennis center with lighted courts, pickle ball courts, great lawn with pavilion for outdoor functions, and mail kiosk. Certain elements, such as additional courts may be phased in as demand dictates. Additional CO's may be granted at the discretion of the Community and Economic Development Director, if sufficient progress is being made on the amenity.
11. Covenants shall be put in place by the developer restricting against the parking of boats, trailers, and campers within driveways or streets. In addition, no on street parking shall be permitted for vehicles.
12. No more than 10% of the units within the proposed community storage facility may be leased to non-residents of the proposed development. There are no restrictions for non-resident use of any commercially operated storage facility that is located within the Commercial District.
13. A Uniform Sign Plan as identified within Section 9-18-7-4 of the Unified Land Development Code shall be required from the developer and is subject to approval by the Gainesville Community and Economic Development Director. All signs associated with residential uses shall be limited to indirect lighting. All signs shall be located outside of utility areas and shall not block visibility of vehicular traffic.
14. All proposed detention ponds shall be fenced and landscaped in order to mitigate the view from all roads and adjacent properties. All fencing and landscaping materials shall be approved by the Community and Economic Development Department Director.
15. A site shall be made available within the boundaries of the proposed development to the City of Gainesville for a school consisting of twenty (20) acres of land which meets the criteria established by the Georgia State School Board for such a public school. This site shall be made available by the developer without charge for the land, at any time within seven (7) years after the developer has provided paved access to the site. Alternatively, the School Board may elect to receive an amount equal to the Developer's per acre purchase price for 20 acres paid in two installments within 7 years of a land development permit being issued. The School Board shall identify a potential site no later than 180 days from closing, excluding any portions of the property that have been presented as Phase 1 of the community.
16. The developer agrees to make available an additional twenty (20) acres, for a total of forty (40) acres, if the City of Gainesville has a need for a second school site. The Gainesville School Board would be required to pay fair market value for this last twenty (20) acres. The School Board shall identify a potential site no later than 180 days from closing, excluding any portions of the property that have been presented as Phase 1 of the community.
17. A site shall be made available within the boundaries of the proposed development to the City of Gainesville for a fire station and a precinct for the police department



consisting of not more than two (2) acres of land which will be designated by the developer and reasonably approved by the Gainesville City Council for such public services. This site shall be made available by the developer without charge for the land, at any time within seven (7) years after the developer has provided paved access to the site. This site has been identified on the Concept Plan and the City of Gainesville shall have 180 days from closing to determine if the site meets their requirements or if another site is preferred, however any portions of the property that have been presented as Phase 1 of the community shall be excluded.

18. The plan shall include a fifty (50') foot perimeter buffer separating all portions of the development from the existing single-family communities to the south of the project site. The specific parcels are shown on the buffer exhibit attached. The composition of this buffer, including any fencing deemed necessary, shall be subject to final approval by the Community and Economic Development Department Director.
19. Minimum five foot (5') wide sidewalks with a two foot (2') grass beauty strip shall be required as shown on the Pedestrian Access Plan filed with this request. Applicant, at his sole discretion, shall substitute a five foot (5') sidewalk with a ten foot (10') multi-use trail (asphalt or concrete) where indicated on the Pedestrian Access Plan to be maintained by the Homeowners Association (HOA).
20. All new streets shall meet the standards within the current Gainesville Unified Land Development Code, unless varied herein. All proposed residential uses, commercial uses and amenities shall provide for pedestrian connectivity throughout the development. All costs associated with the improvements shall be at the full expense of the developer.
21. All access point design for the subject property shall be submitted for review and approval by the Gainesville Public Works Director, Hall County and/or the Georgia Department of Transportation. The main access road, from Old Cornelia Highway to Applicant's property shall be constructed by the City of Gainesville at its expense. Applicant shall be responsible for access beyond this point and any other access points to the property.



|                                                                                                                                                                 |  |                                                                                                                                                                                                                                     |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Applicant: <b>CABALLERO HOLDINGS, LLC</b>                                                                                                                       |  | Request:<br>Annex 140.77+/- acres tract and establish zoning as Planned Unit Development (P-U-D); and Amend existing Planned Unit Development (P-U-D) zoning on a 981.661+/- acres tract for a master planned mixed-use development |  |
| <b>ANNEXATION &amp; ZONING AMENDMENT REQUEST</b>                                                                                                                |  |                                                                                                                                                                                                                                     |  |
| Subject Property Address:<br>0, 2166, 2170 & 2210 Old Cornelia Hwy, SE;<br>0, 2465, 2490 & 2544 Floyd Road, SE;<br>0 Lenox Drive, SE; & 0 Eberhart Cemetery Rd. |  | Tax Parcel:<br>15-021-000-164; 15-022-000-001B, 003 (Part), 003M, 004, 034 & 086;<br>15-033-000-001; 15-033B-000-022, 024 & 026A                                                                                                    |  |
| Meeting Date: 12/14/2021                                                                                                                                        |  | Map Prepared: 11/10/2021                                                                                                                                                                                                            |  |
|                                                                                                                                                                 |  | Subject Property                                                                                                                                                                                                                    |  |
|                                                                                                                                                                 |  | SCALE: 1" = 2,000'                                                                                                                                                                                                                  |  |
|                                                                                                                                                                 |  |                                                                                                                                                                                                                                     |  |





# GAINESVILLE

Annex 140.77 acres  
with P-U-D zoning

Amend existing  
981.661 acres P-U-D zoning

Applicant: **CABALLERO HOLDINGS, LLC**

## ANNEXATION & ZONING AMENDMENT REQUEST

**Subject Property Address:**

O, 2166, 2170 & 2210 Old Cornelia Hwy, SE;  
O, 2465, 2490 & 2544 Floyd Road, SE;  
O Lenox Drive, SE; & O Eberhart Cemetery Rd.

**Tax Parcel:**

15-021-000-164; 15-022-000-001B,  
003 (Part), 003M, 004, 034 & 086;  
15-033-000-001; 15-033B-000-022,  
024 & 026A

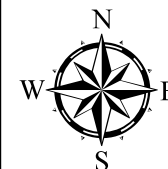
**Request:**

Annex 140.77+/- acres tract and establish zoning as Planned Unit Development (P-U-D); and Amend existing Planned Unit Development (P-U-D) zoning on a 981.661+/- acres tract for a master planned mixed-use development



Subject Property

Aerial from 2018



Meeting Date: 12/14/2021

Map Prepared: 11/10/2021

0 1,200 2,400 Feet

Page 27 of 1097

SCALE: 1" = 2,000'



15033B 000024

15033B 000022

15033B 000026A

## Annexation Parcels

15022 000001B

15022 000003

| UNIT SUMMARY                 |             |
|------------------------------|-------------|
| ACREAGE                      | 1122        |
| SINGLE FAMILY DETACHED UNITS | 1414        |
| SINGLE FAMILY ATTACHED UNITS | 311         |
| MULTI-FAMILY UNITS           | 540         |
| TOTAL RESIDENTIAL            | 2365        |
| OVERALL DENSITY              | 2.10        |
| OPEN SPACE                   | 845.3 ACRES |
| COMMERCIAL                   | 75000 SF    |

**OWNER INFORMATION:**  
**CABALLERO HOLDINGS, LLC**  
 3840 WINDERMERE PARKWAY, SUITE 402  
 CUMMING, GA 30041

NOTE:  
 1. THE BOUNDARY AND EXISTING PARCELS LINES SHOWN WERE TAKEN FROM  
 HALL COUNTY GIS & SURVEY PROVIDED BY ROCHESTER & ASSOCIATES, INC.  
 2. EXISTING TOPOGRAPHY AND UTILITIES SHOWN FROM HALL COUNTY GIS &  
 SURVEY PROVIDED BY ROCHESTER & ASSOCIATES, INC.  
 3. THE EXISTING CREEKS AND BUFFERS TAKEN FROM HALL COUNTY GIS, NOT  
 FIELD VERIFIED.  
 4. FLOODING OF THE PROPERTY ARE LOCATED IN A FLOOD HAZARD ZONE "X"  
 AS PER FIRM FLOOD INSURANCE RATE MAP OF HALL COUNTY, GEORGIA  
 COMMUNITY FIRM NO. 13128C0100, DATED APRIL 4, 2018.

**CABALLERO HOLDINGS, LLC**

CITY OF GAINESVILLE  
 HALL COUNTY, GEORGIA

ZONING PLAN - GAINESVILLE TOWNSHIP



# A PLANNED UNIT DEVELOPMENT

*Gainesville, Georgia  
September 24, 2021*



# GAINESVILLE TOWNSHIP



Caballero Holdings, LLC  
3840 Windermere Parkway  
Cumming, Georgia 30041

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# PROJECT OVERVIEW

## OF GAINESVILLE TOWNSHIP



Gainesville Township is a master planned community consisting of approximately 2365 homes on approximately 1122 acres. Development is planned to be primarily confined to the ridgelines in order to promote a greater balance with nature. 645± acres will remain as open space. The project's overall density is approximately 2.11 units per acre. The project is less dense than most other developments served by public sewer and will contain a variety of different housing types and sizes, which will be separated into various sub-communities or pods. This variety of housing types is intended to encompass different price points and accommodate residents of varying ages, from young professionals to families to active seniors. The community's focal point will be the Gainesville Township Central Amenity, passive parks throughout and extensive trail system, which are all designed to create a unique identity and character for the development.

Large areas of open space containing mature trees are integrated into the master plan to preserve the property's natural beauty. A significant number of homes within each pod will adjoin these open spaces thereby allowing residents to use and enjoy the open space areas. Over 80,000 feet of jurisdictional streams bisect the property, creating natural buffers and preservation areas.

In essence, Gainesville Township connotes a sense of community at a special place in the foothills of the Northeast Georgia Mountains — a place many would like to call home.

**DRAFT**

GAINESVILLE TOWNSHIP  
CONNOTES A SENSE OF COMMUNITY  
AT A SPECIAL PLACE  
IN THE FOOTHILLS OF THE  
NORTHEAST GEORGIA MOUNTAINS



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# DEVELOPER'S STORY

## OF GAINESVILLE TOWNSHIP



Cotter Properties and Development, LLC ("CPD"), parent company of Caballero Holdings, LLC was established by Douglas W. Cotter, Jr. in 2004 and is one of the preeminent residential real estate development firms in the southeast.

Mr. Cotter and his partners have extensive development experience and participated in the development of over 8,000 residential lots prior to 2014. Since 2014 CPD has rezoned, entitled or developed in excess of 8,000 residential lots and is currently working to rezone, entitle and develop over 12,000 additional residential lots in four states.

CPD has served as the sole or primary developer on over 40 projects since 2014 and more than 60 projects prior to 2014.

Through its relationships with local real estate brokers and the nation's largest home builders, CPD is able to source projects others miss and close on projects others simply cannot disentangle and consummate.

CPD is well positioned for the future and to take advantage of current market opportunities, which include serving as a preferred development partner for multiple national builders and local development sponsors.

CPD's current principals are Douglas W. Cotter, Jr. and George E. Harvey III. Mr. Cotter is a past president of The Greater Atlanta Home Builders Association and has been active in the real estate development and home building arenas since 1991. Mr. Harvey is an attorney that left the full-time practice of law in 2006 in order to pursue a career as a real estate developer.

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COTTER PROPERTIES AND DEVELOPMENT, LLC  
WAS ESTABLISHED IN 2004



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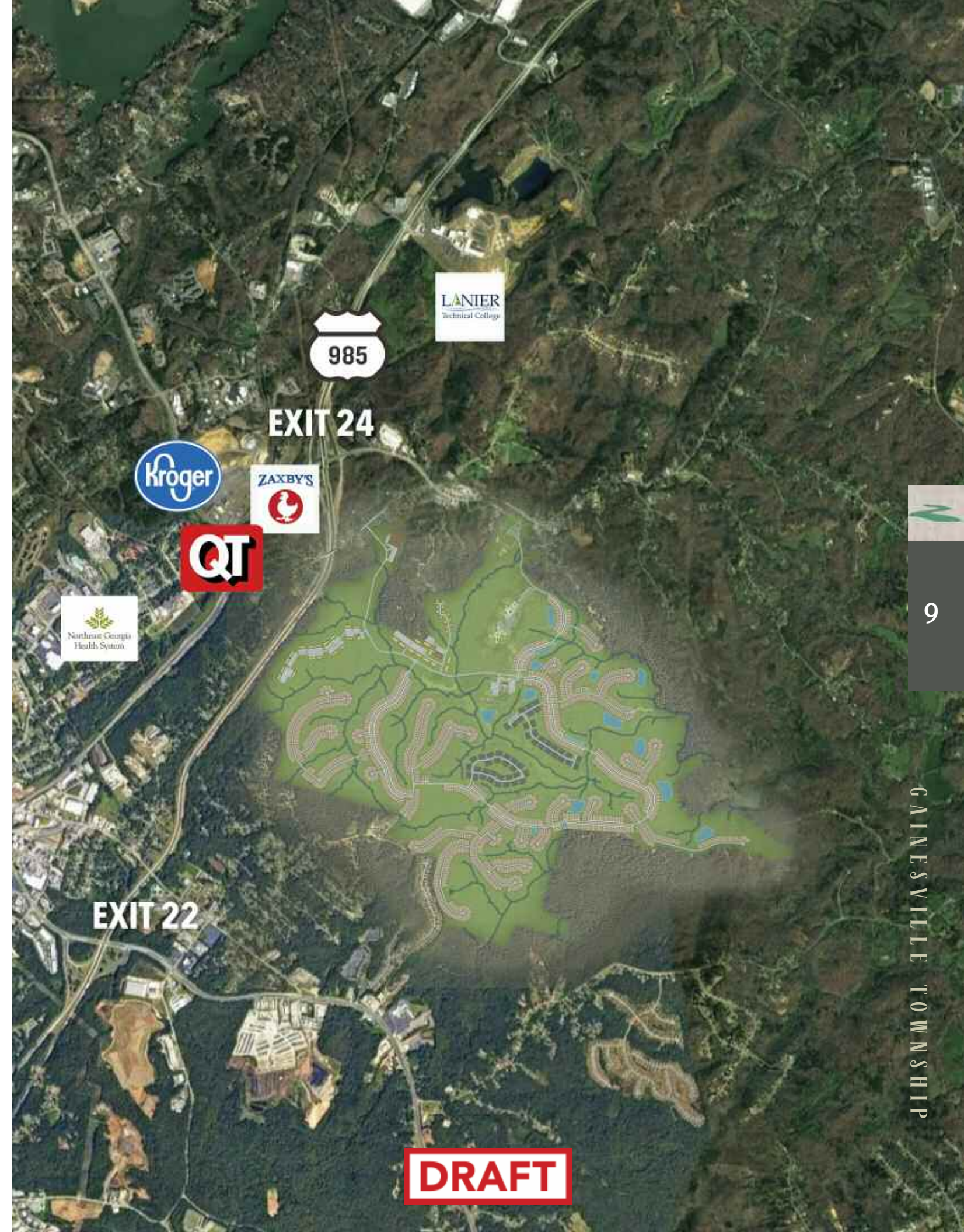


# LOCATION OF GAINESVILLE TOWNSHIP

The future Gainesville Township community is located less than 3 miles north-east of the City of Gainesville square and less than 1 mile east of I-985 at Exit 24. Primary access to the property will be from Old Cornelia Highway near the current location of White Sulphur Elementary School. The property is surrounded primarily by developed residential uses.

Gainesville Township will straddle and protect the floodplain of Pond Fork, a tributary to the Middle Oconee River. Several unnamed streams exist on the property and will be preserved along with the majority of their associated mature tree canopy. Limited areas of the property were previously timbered, creating pastures in the lower lying areas. The property is surrounded by a variety of residential uses which have been developed over the past 50 years. Approximately 1400 lf of the property fronts to I-985 just south of Exit 24. A major retail area, anchored by a Mega Kroger is developing on the west side of I-985 along with restaurants and other commercial uses. North Georgia Health System's main campus is located approximately 2.2 miles away on Jesse Jewell Parkway. The new campus of Lanier Technical Institute is located less than 2 miles north on I-985.

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# CHARACTER

## OF GAINESVILLE TOWNSHIP



The Gainesville Township community has been carefully planned to minimize environmental impacts and maximize internal connectivity based on streams, wetlands, steep slopes and other natural features. Development will be concentrated primarily along ridge lines with the majority of land adjacent to streams left untouched. The general theme is planned to promote a sense of community and interconnectivity while still providing smaller pods of development that may have their own individual identities.

Gainesville Township is planned to contain a variety of housing types, including age-targeted single-family houses and town houses for active adults and traditional single-family neighborhoods with a range of lot widths and home sizes as well as multi-family options.

A key feature of Gainesville Township will be its multi-use system of walking paths that will connect all areas of the community to the Central Amenity. The community design will foster connectivity for the residents to one another, nature and the amenities. Additional planned amenities include a spacious clubhouse for gatherings, lap pool with separate children's area, pickle ball courts, disc golf and lighted tennis courts suitable for ALTA/USTA competition. Small pocket parks, intimate landscaped spaces and winding sidewalks will further promote the cohesiveness of the community.

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GAINESVILLE TOWNSHIP  
HAS BEEN PLANNED  
TO PROMOTE A SENSE OF  
COMMUNITY AND  
INTERCONNECTIVITY.

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# STREET SYSTEM

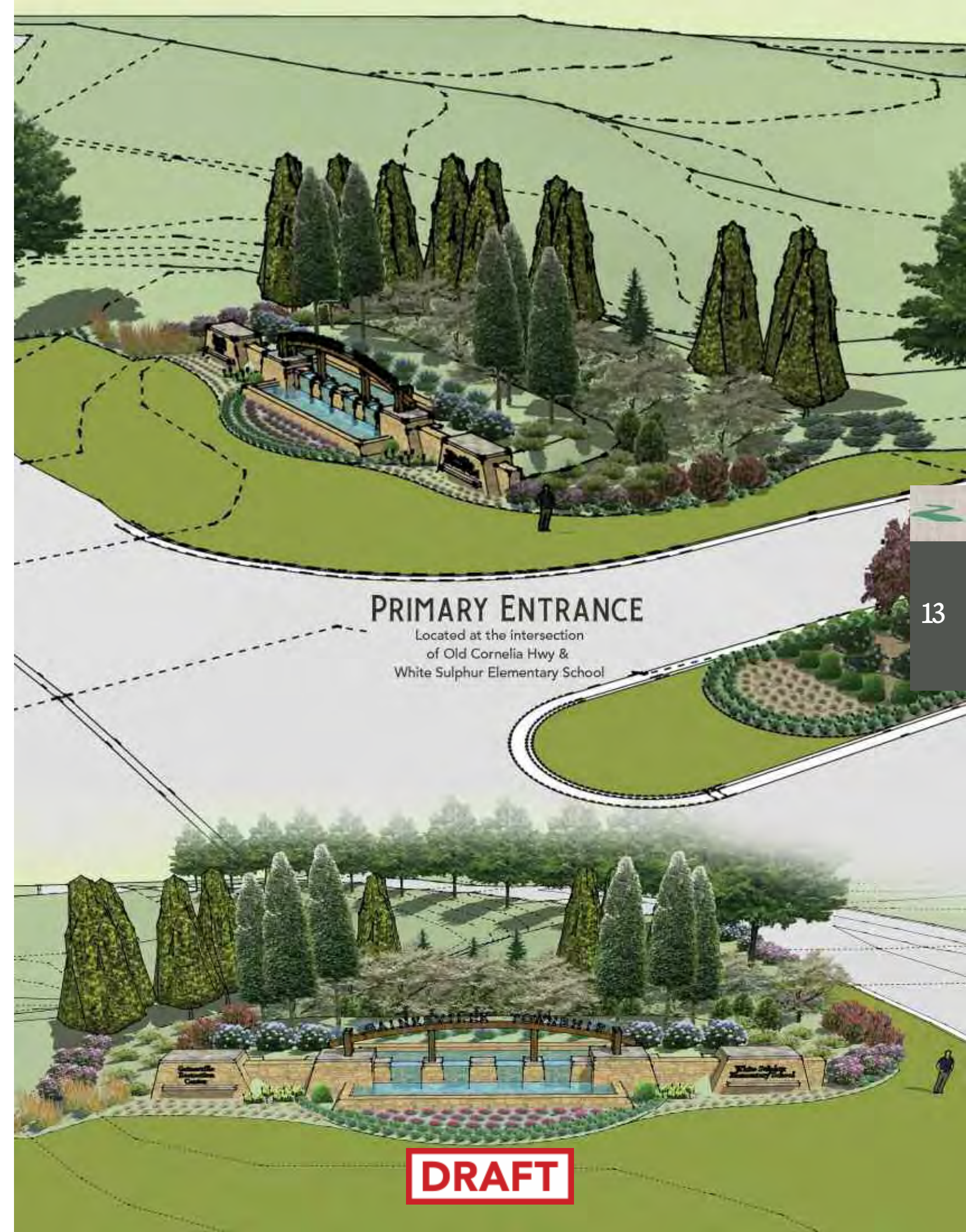
## OF GAINESVILLE TOWNSHIP



The primary entrance to Gainesville Township will be at the current intersection of Old Cornelia Highway and White Sulphur Elementary School. Additionally, a second entrance is planned on Old Cornelia Highway to the west of the primary entrance. A future third entrance may be added to the south of the property with access to Athens Highway (US 129). All streets are planned to become publicly maintained at the expiration of the required maintenance periods. All streets will be constructed to City of Gainesville standards and will include sidewalks, multi-use paths, street lights and cross walks where indicated. Multi-Use paths may be constructed of concrete or asphalt.

Streets that are located internal to single family attached and multi-family portions of the project may be gated and remain private as determined by the Developer.

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**PRIMARY ENTRANCE**

Located at the intersection  
of Old Cornelia Hwy &  
White Sulphur Elementary School

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# OPEN SPACE

## OF GAINESVILLE TOWNSHIP



At 645± acres, the open space that meanders throughout the development will be directly accessible to each residential pod. The open space will include areas for amenities, walking paths and passive or active recreation. However, the majority of the open space will be left undisturbed to protect the natural beauty of the site as well as environmentally sensitive areas. The development team believes this element adds tremendous value to the overall development.

Gainesville Township is being developed with nature and outdoor experiences in mind, including numerous parks, open spaces and an extensive network of walking paths as well as natural water amenities. Pocket parks will be located throughout the community and will be connected through the network of walking paths. One pocket park may include benches and an arboretum while another may have a swing set and yet another may simply have a community lawn or nature observation deck. These areas will serve as the focal points for different areas of the community. This element of the community will become a social gathering place and will serve as host to diverse community activities.

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**645± ACRES OF OPEN SPACE**

Including numerous parks,  
open spaces, walking paths  
and natural water amenities.



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# AMENITIES

## OF GAINESVILLE TOWNSHIP



Primary amenities are planned in the central portion of the property with additional amenities planned throughout the project.

### The Central Amenity Center will include:

**Clubhouse**

**Swim Center** with a lap pool with children's play area

**Tennis Center** with lighted courts suitable for ALTA/USTA competition

**Pickle Ball courts**

**Great Lawn** with pavilion for outdoor functions

**Mail Kiosk**

**Disc Golf**

**Pocket Parks**

**Dog Park**

**Extensive Trail, Sidewalk and Multi-Use Path System**

The Central Amenity building, parking and street elements are designed to be pedestrian-friendly with vehicular traffic programmed for slower speeds around the proposed roundabout. Bicycle racks are planned to promote non-vehicular trips to the Center. Satellite amenities of a smaller scale may be offered at other areas based on future needs and market demand. These amenities could range from small open space areas to cabanas with neighborhood sized pools. A boat/RV storage area may also be included for the neighborhood

The extensive trail and sidewalk and multi-use path system, along with the other amenity features, will promote social interaction between residents of the Gainesville Township community and promote a healthy lifestyle for its residents.

The individual elements of these amenities may be phased in relation to future needs and market demand.

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### THE CENTRAL AMENITY CENTER

Featuring clubhouse, swim center, lighted tennis center, pickle ball courts, and great lawn with pavilion.



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# RESIDENTIAL PRODUCTS

OF GAINESVILLE TOWNSHIP



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GAINESVILLE TOWNSHIP

SINGLE  
FAMILY  
DETACHED

The community's development plan has created a balance of residential product choices that will accommodate multiple lifestyle desires. Particular emphasis has been placed on preserving as many areas of natural beauty and tree cover as possible, thereby creating natural separation of neighborhoods and promoting access to parks and open spaces.

Traditional single-family lots are proposed for the majority of Gainesville Township. A variety of lot width sizes and product sizes will be located throughout the project. Similar sizes will be "clustered" together and may be completed by multiple builder groups. While the majority of these products will be owner occupied, nothing in this document shall prohibit their use as for rent products, at the requested limit.

| SF Detached                       | 40'   | 50'   | 60'   | 75'    | 95'    |
|-----------------------------------|-------|-------|-------|--------|--------|
| Lot Width                         | 40'   | 50'   | 60'   | 75'    | 95'    |
| Minimum lot size                  | 4,000 | 5,000 | 6,000 | 7,500  | 9,000  |
| Minimum Front Setback             | 25'   | 25'   | 25'   | 25'    | 25'    |
| Minimum Side Setback              | 5'    | 5'    | 5'    | 5'     | 5'     |
| Minimum Rear Setback              | 10'   | 10'   | 10'   | 10'    | 10'    |
| Exterior Buffer                   | 25'   | 25'   | 25'   | 25'    | 25'    |
| Minimum Building Separation       | 10'   | 10'   | 10'   | 10'    | 10'    |
| Maximum % of SF Detached Lot Type | 15%   | 35%   | 35%   | No Max | No Max |
| Minimum Heated SF per Home        | 1,400 | 1,800 | 1,800 | 2,000  | 2,200  |

Lot standards and the allowable maximum percentages of each lot size is indicated below. The combined number of 40's & 50's shall not exceed 50% of the total.



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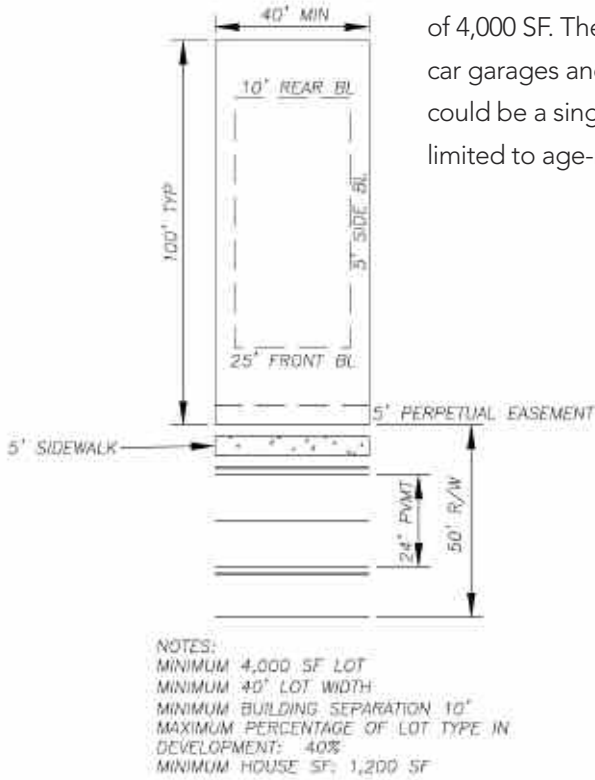
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# 40' SINGLE FAMILY DETACHED LOTS

The Community's development plan has been created to provide a balance of residential product choices that will accommodate multiple lifestyle options. Up to 15% of the lots could be 40' wide lots with a minimum lots size of 4,000 SF. These lots will support a product width up to 30' wide with two car garages and a minimum heated floor area of 1,400 SF. The product type could be a single story ranch or a 1 ½ to 2 story product. The 40' lots shall be limited to age-restricted neighborhoods only.

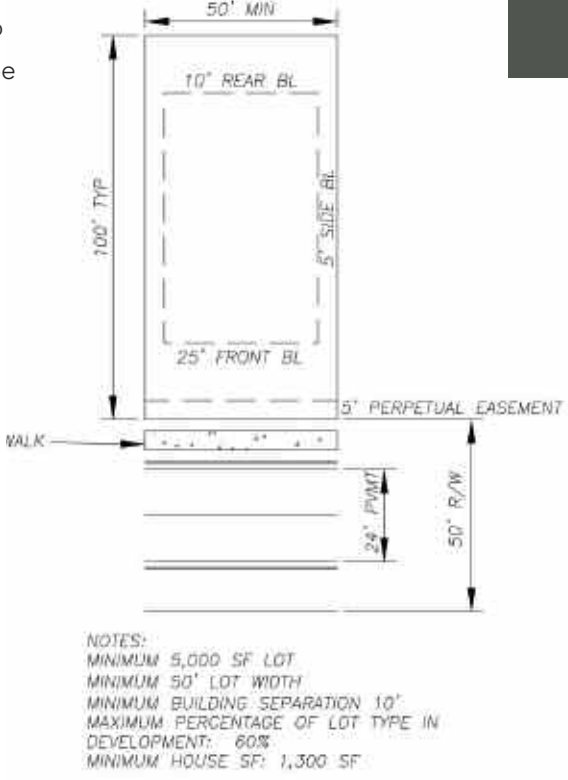


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# 50' SINGLE FAMILY DETACHED LOTS

The Community's development plan has been created to provide a balance of residential product choices that will accommodate multiple lifestyle options. Up to 35% of the lots could be 50' wide lots with a minimum lots size of 5,000 SF. These lots will support a product width up to 40' wide with two car garages and a minimum heated floor area of 1,800 SF. The product type could be a single story ranch or a 1 ½ to 2 story product. The combined number of 40' lots and 50' lots shall not exceed 50% of the total lot count.



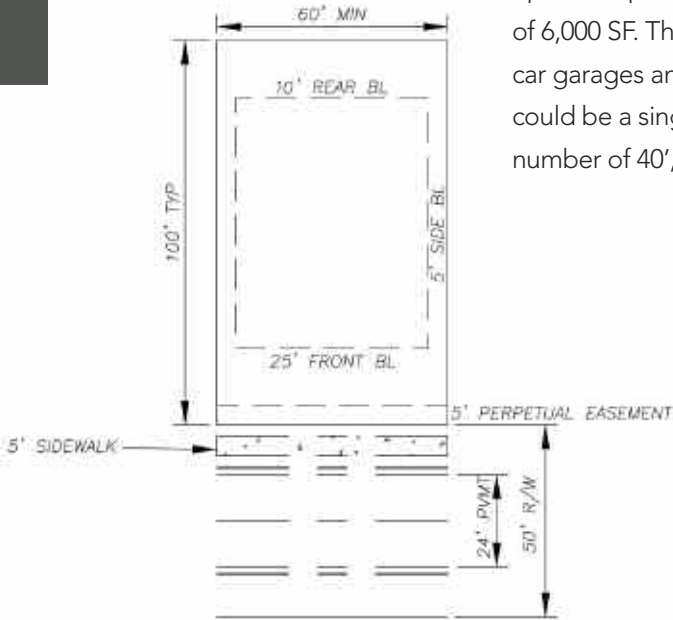
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# 60' SINGLE FAMILY DETACHED LOTS

The Community's development plan has been created to provide a balance of residential product choices that will accommodate multiple lifestyle options. Up to 35% of the lots could be 60' wide lots with a minimum lots size of 6,000 SF. These lots will support a product width up to 50' wide with two car garages and a minimum heated floor area of 1,800 SF. The product type could be a single story ranch or a 1 ½ to 2 story product. The combined number of 40', 50' & 60' lots shall not exceed 85% of the total lot count.



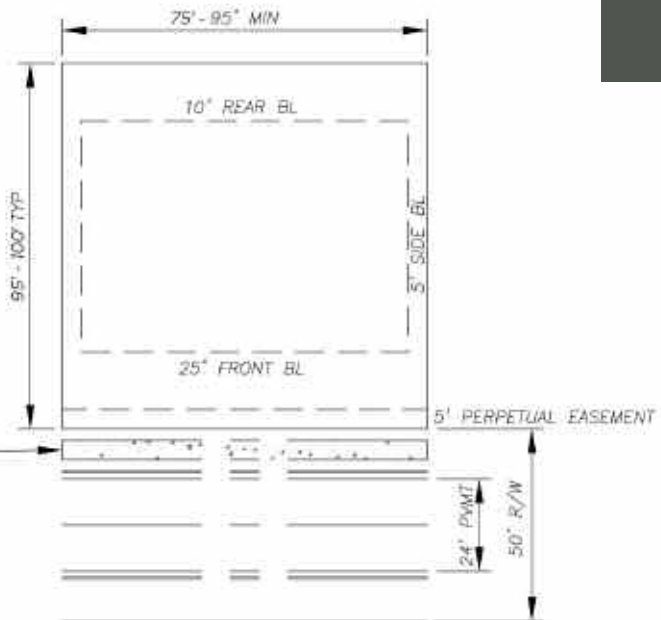
NOTES:  
MINIMUM 6,000 SF LOT  
MINIMUM 60' LOT WIDTH  
MINIMUM BUILDING SEPARATION 10'  
MAXIMUM PERCENTAGE OF LOT TYPE IN DEVELOPMENT: 80%  
MINIMUM HOUSE SF: 1,500 SF



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# 75' & 95' SINGLE FAMILY DETACHED LOTS

The Community's development plan has been created to provide a balance of residential product choices that will accommodate multiple lifestyle options. There is no proposed maximum number of lots for 75' & 95' wide lots with a minimum lots size of 7,500 to 9,000 SF. These lots will support a product width 65' to 85' wide with front or side entry garages and a minimum heated floor area of 2,000 SF. The product type could be a single story ranch or a 1 ½ to 2 story product.



NOTES:  
MINIMUM 7,500 - 9,000 SF LOT  
MINIMUM 75' - 95' LOT WIDTH  
MINIMUM BUILDING SEPARATION 10'  
MAXIMUM PERCENTAGE OF LOT TYPE IN DEVELOPMENT: NO MAX  
MINIMUM HOUSE SF: 2,000-2,200 SF



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GAINESVILLE TOWNSHIP

# SINGLE FAMILY ATTACHED

Single Family Attached product will be located strategically within the project, providing an alternative lifestyle and pricing option. This product may consist of both multi-level townhome style homes and single-level quadraplex homes. While some of the products will be targeted toward families, others may be age-targeted to a 55+ buyer. All single family attached homes will be offered as low or no maintenance alternatives to detached home ownership. While the majority of these products will be owner occupied, nothing in this document shall prohibit their use as “for rent” products.

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Lot standards and the allowable maximum percentages of each lot size is indicated below:

| SF Attached            | Townhomes | Townhomes |
|------------------------|-----------|-----------|
| Lot Width              | 20        | 24        |
| Minimum lot size       | 2,000     | 2,000     |
| Front Setback          | 15        | 20        |
| Side Setback           | 0         | 0         |
| Rear Setback           | 0         | 0         |
| Exterior Buffer        | 25        | 25        |
| Building Separation    | 20        | 20        |
| Minimum Square Footage | 1,100     | 1,400     |
| Maximum %              | No Max*   | No Max*   |

*\*TOTAL NUMBER OF SF DETACHED UNITS SHALL NOT EXCEED 311.*



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GAINESVILLE TOWNSHIP

# MULTI-FAMILY

Multi-Family product is planned for a minimum of two locations within the project. Product offerings may include both family oriented as well as adult focused options. The product will be low rise (two/three or three/four story) garden style or breezeway style buildings, attached manor homes or detached cottages.

The Multi-Family areas of the project will provide their own amenities, geared specifically to their target markets. Amenities typically include; clubhouse, pool, fitness equipment and outdoor amenities such as fire pits and park areas.

**THE TOTAL NUMBER OF MULTI-FAMILY UNITS  
WILL BE CAPPED AT 640.**



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Multi-Family standards are indicated below:

| Multi-Family        | Garden Style | Breezeway Style | Manor | Cottages |
|---------------------|--------------|-----------------|-------|----------|
| Front SB            | 30'          | 30'             | 10'   | 10'      |
| Side SB             | 10'          | 10'             | 10'   | 5'       |
| Rear SB             | 20'          | 20'             | 10'   | 10'      |
| Building Separation | 20'          | 20'             | 20'   | 10'      |
| Maximum Stories     | 4            | 4               | 3     | 2        |
| Maximum Height      | 60'          | 60'             | 45'   | 35'      |



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# COMMERCIAL DEVELOPMENT

## OF GAINESVILLE TOWNSHIP



Commercial development may occur in areas with external road access, primarily along Old Cornelia Highway. Allowable uses shall be those specific to the Neighborhood Business District (N-B), drive thru restaurants and those specified under the "Institutionalized residential living and care facilities, serving more than eighteen (18) persons" use. Individual buildings shall not exceed three (3) stories in height with a gross square footage not to exceed 75,000 square feet. Parking ratios shall be in accordance with City of Gainesville ordinances based on the final use of the property.

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GAINESVILLE TOWNSHIP

# SITE DEVELOPMENT

## OF GAINESVILLE TOWNSHIP



### Monumentation & Signage

The gateway to Gainesville Township is located at the intersection of Old Cornelia Highway and the City's new entrance to the Gainesville Youth Sports Complex. This intersection will serve the Youth Sports Complex, White Sulphur Elementary School and Gainesville Township. This entrance will act as the main visual link to the project and announces the development. As such, a critical part of Gainesville Township's initial impression, the project gateway will include landscape and hardscape features, signage, monumentation, and lighting establishing a sense of place and arrival point. The major gateway will define Gainesville Township, reflecting the architectural and landscape style of the development. Signage will contain additional identification of the Gainesville Youth Sports Complex and the White Sulphur Elementary School.

Billboard placement, including electronic billboards, on the property shall be allowed and limited to frontage along I-985. These billboards shall not exceed 440 square feet and 45 feet in height. All billboards are limited to project related content and must be removed within seven years of erection or 95% of project build-out, whichever occurs last. There shall be a limit of two such billboards.

### Secondary Identification

Additional signage and monumentation elements may be placed throughout the development and should be similar in style to the major project identification but will be smaller in scale. These may be placed at the secondary access points on Old Cornelia Highway or on interior streets of Gainesville Township. Minor information signs may also be used to guide visitors to various neighborhoods, amenities, and points of interest within Gainesville Township. The information signs might include event listings and other pertinent information relevant to the community.



### Landscaping

Together with the infrastructure design, the proper planning and design of outdoor spaces is critical in fostering the desired atmosphere of Gainesville Township. The overall landscape concept for this area plays a crucial role in unifying Gainesville Township and is intended to ensure that residences and related improvements are in concert with scenic beauty and natural conditions. The development will respect the area's natural setting and include new plantings that harmonize with the existing environment and the landscape character of the region. A consistent landscape that responds to aesthetic concerns and helps establish a positive image within the development for years to come must be established.





# COMMUNITY STANDARDS

## OF GAINESVILLE TOWNSHIP



### Maintenance & Ownership of Streets and Open Spaces

All of the streets, including those within individual pods or phases, are intended to be built to the typical sections shown herein and otherwise to the standards of the City of Gainesville. Other than the Parkway, roads may be gated for limited access and privately maintained. Roads not gated or otherwise access-limited will be dedicated to the City of Gainesville for maintenance. All interior open spaces and common elements will be deeded to the Master Home Owner's Association for maintenance and operation.

### Water & Sewer Utilities

The City of Gainesville will provide water and sewer service to Gainesville Township. The availability of services has been verified with the City of Gainesville.

### Homeowners Association

A mandatory Home Owner's Association (HOA) will be formed for Gainesville Township. The HOA will maintain and manage all of the common areas of the development, including financial management, architectural controls, and enforcement of community standards. The Multi-Family areas will be separate from the overall HOA but they will contribute to certain common element maintenance. The Restrictive Covenants will limit the number of single family detached rentals to 300 units and limit the number of single family attached rentals to no more than 75% of the units constructed at any given time. Any modifications or new construction within the community must be approved by an Architectural Review Board. The Board will be established and operated by the Developer until such time as the powers are transferred to the HOA(s).

### Model Homes & Prairie Homes

Prior to approval of any phased Final Plat, the City of Gainesville will issue a maximum of 50 model home permits and 50 prairie home permits. Once final platting has been approved for the outstanding prairie home permits, the City of Gainesville will issue additional prairie home permits, not to exceed 50 at any given time. This time period allows the Developer to accelerate their production schedule and reduce the time frame necessary to complete a house and close a sale. In a development of this magnitude, the City of Gainesville recognizes the carrying cost of land acquisition, infrastructure and overhead requires an expedited delivery schedule to meet project objectives and insure the ongoing success and vitality of the project.

Model home and prairie home permits will not be issued until access to the lot is provided in the form of a hard surface (crusher run) and fire protection is established within 500 feet of the lot in the form of a 1500-gallon tank fitted to City of Gainesville Fire Department specifications. The applicant/property owner agrees to indemnify the City of Gainesville against any claim of loss that may result from the early issuance of these type of permits.

**Model Home and Prairie Home shall be defined as follows:**

**PRAIRIE HOME** – *A concept used by Developers to allow for home construction starts (building permit issuance) prior to Final Plat recording. Prairie Home permits will not be granted temporary certificates of occupancy or permanent certificates of occupancy until approval of the final plat for the phase of development in which they are located.*

**MODEL HOME** – *A concept used by Developers to allow for home construction starts in order to model building types, floor plans, interior finishes, etc. to potential buyers. Model home permits will be granted a temporary certificate of occupancy (provided adequate restroom facilities have been completed) prior to final plat that will restrict the use of the structure to a sales center and furniture staging. Habitation will not be allowed in model homes until a permanent certificate of occupancy has been issued. Permanent certificate of occupancy will not be issued until approval of the final plat for the phase of development in which they are located.*



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Drainage & Stormwater Management

All of Gainesville Township lies within the Pond Fork drainage basin and flows to the Middle Oconee River. Highest elevations are on the north and east and sides of the property, with flows generally to the east side of the property. Master detention facilities, serving multiple phases of development, are planned at suitable locations to reduce the number of detention ponds otherwise required.

Uses

Land development for residential housing is dynamic because of the need to concurrently predict and respond to the local real estate market and national economic and demographic trends.

Approval of the Gainesville Township Master Plan is intended to approve approximately 2365 units as the maximum number of units for the development. Housing product types may be rearranged, combined or reconfigured without limit within the development, provided the total number of units nor the maximum number of lot sizes are not exceeded and that the overall change will not substantially increase impact to the public school system, roadways at peak hours or points of connection.

Uses of a traditional single family residential nature are primarily for owner occupancy but, up to 300 units Single Family Detached and Single Family Attached may be used for rental purposes. Multi-Family uses are intended to be 100% for rental purposes. If market conditions warrant, up to 5% of the acreage of Gainesville Township may be used instead for senior resident adult congregate living facilities of independent living, assisted living, personal care and/or memory care at a density not to exceed 22 units per acre, but shall not include a nursing home or any other facility that requires a Certificate of Need.

Uses and standards described in the plan anticipate and describe single-family detached, single-family attached and multi-family forms of construction. If the use and/or form of housing for a particular phase is not specifically described or detailed in the plan, such a use or form may be approved administratively by staff based on then existing approved standards of the City of Gainesville for such a form of construction on similar sites elsewhere in the incorporated areas of the City.

Rental Percentage Breakdown

| Type              | Number | % of Total | % of Max Rental | Max # Rental |
|-------------------|--------|------------|-----------------|--------------|
| SF Detached       | 1,414  | 60%        | 21%             | 300*         |
| SF Attached       | 311    | 13%        | 96%             | 300*         |
| Multi-Family      | 640    | 27%        | 100%            | 640          |
| Total Residential | 2,365  | 100%       |                 | 940          |

\*COMBINED TOTAL OF SF DETACHED/SF ATTACHED SHALL NOT EXCEED 300 UNITS.

Phasing

- Phase 1 – The Developer intends to construct a portion of Gainesville Township Parkway (beyond the point constructed by the City) to access and serve approximately 200 single family detached lots, 150 single family attached units and 320 multi-family units. In addition, the Central Amenity will be started during Phase 1, with a completion no later than the completion of Phase 2.
- Phase 2 – The Developer intends to develop additional portions of the property, to serve 200 single family attached lots.
- Phase 3 – The Developer intends to develop additional portions of the property, to serve 200 single family attached lots.
- Phase 4 – The Developer intends to develop additional portions of the property, to serve 200 single family attached lots and 150 additional single family detached homes.
- Phase 5 & Future Phases – The Developer intends to complete the Gainesville Township Parkway and develop additional lots as demand warrants

Phasing is generally sequential, but may overlap. Lots of various sizes and ownership types may be under development concurrently in multiple portions of the overall site.



# ZONING REQUEST

## OF GAINESVILLE TOWNSHIP



The current zoning was approved in February 2001 as "Sussex". The chart below shows the primary differences in the two plans:

### Comparison to Current Zoning Plan

| Version                       | Current Plan | Proposed Plan        |
|-------------------------------|--------------|----------------------|
| Name                          | Sussex       | Gainesville Township |
| Acreage                       | 965          | 1,122                |
| Single Family Detached Units* | 977          | 1,414                |
| Single Family Attached Units  | 197          | 311                  |
| Multi-Family Units            | 1,096        | 640                  |
| Total Residential             | 2,270        | 2,365                |
| Overall Density               | 2.35         | 2.11                 |
| Open Space                    | 548.5 acres  | 645.3 acres          |
| Commercial                    | 24,000 sf    | 75,000 sf            |

#### This request includes:

- Annexation and Rezoning of five parcels that are contiguous with the currently zoned property. These parcels total approximately 144 acres.
- Amend the existing zoning approval as detailed in the application, zoning narrative and conceptual site plan.
- Adopt the conditions of zoning as outlined below.

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## STAFF PROPOSED CONDITIONS

1. The development standards within the applicant's narrative, site plans, and architectural renderings shall be made part of the zoning ordinance, and shall be subject to the Community and Economic Development Director approval. Any zoning conditions adopted as part of this zoning ordinance that conflict with the applicant's narrative, concept plan and architectural renderings shall take precedence over the applicant's development standards.
2. The maximum number of single-family detached homes/lots shall be 1,414. The maximum number of single-family attached homes shall be 311. The maximum number of multi-family units shall be 640. The total number of residential units shall not exceed 2,365 units.
3. No more than 300 single-family units (detached and/or attached) and 640 multi-family units shall be rental units for a total of 940 rental units. The multi-family units may be any combination of traditional garden-style apartments, townhomes, manor houses, cottages, and/or carriage houses built within the confines of the multi-family areas.
4. Prior to permits being issued for the residential uses, each contractor/developer shall provide architectural renderings of the proposed single-family detached homes, attached townhomes and multi-family apartments for the review and approval of the Community and Economic Development Department Director.
5. The minimum heated floor space for single-family detached homes shall be as presented in the below table associated with zoning condition number 8. The minimum heated floor space for the attached townhomes shall be 1,100 square feet and 640 square feet for the multi-family units. The single-family detached homes and attached townhomes shall not exceed 3 stories in height. The multi-family apartment buildings shall not exceed 3 stories, although 3 / 4 splits shall be allowed.
6. All exterior wall front, sides, and rear of the single-family detached homes, townhomes, and multi-family units shall consist of a variety of building materials consistent with architectural themes and styles determined by the applicant. Foundation water tables of matching brick or stone material, that also covers all exposed foundation walls, will be used where architecturally compatible. Vinyl siding shall only be permitted on soffit areas.

#### Other architectural requirements will include:

- Carriage style garage doors with decorative hardware or other embellishments shall be used on all single-family detached homes and townhomes;
- The roofing material used on all single-family detached homes and townhomes shall be 3-tab architectural/dimensional style asphalt shingles or metal as appropriate to the architectural style of each home as determined by the builder.
- All overhangs including gables and side gables will have a minimum of a 12-inch overhang on all sides;
- The developer shall use a variety of techniques to avoid the monotonous appearance of identical single-family detached homes. Such techniques may employ among others the use of differing front elevations, architectural styles, building exteriors, and other similar techniques so that no single-family detached house is the same as any house directly in front of a single-family detached home or on either adjacent side of a single-family detached home;
- All roofs and gables shall be of a pitch no less than 8/12. This condition shall not apply to dormers, porches, bay windows, and third floor retreats;
- The exterior materials for all homes shall consist of brick, stone, fiber cement siding, cedar shake or wood siding;
- All roof vents, pipes, and other roof equipment (except chimneys) shall be located on the rear elevations and shall be painted to match the color of the roof;
- No above-ground swimming pools shall be permitted;
- No window air conditioning unit may be installed;
- No exterior blank, windowless walls will be constructed;
- If dormers are included, they will not be taller than the main roof;

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STAFF PROPOSED CONDITIONS (continued)

- All single-family detached house plans will have front or side loaded garages;
  - All townhomes will have front or rear entry garages;
  - Street lighting will be provided throughout the development;
  - All front porches of single-family detached homes shall have a minimum depth of 5’;
  - Windows are restricted to single hung or double hung windows.
- These requirements shall be included in the Covenants to be recorded against the property.*
7. Each detached single-family home and townhome shall have, at a minimum, an attached two car garage.
8. Specific development standards for the single-family detached homes shall include the following:

| Lot Width                           | *40'     | 50'      | 60'      | 75'      | 95'      |
|-------------------------------------|----------|----------|----------|----------|----------|
| Minimum lot size                    | 4,000 SF | 5,000 SF | 6,000 SF | 7,500 SF | 9,000 SF |
| Minimum Front Yard Setback          | 25'      | 25'      | 25'      | 25'      | 25'      |
| Minimum Side Yard Setback           | 5'       | 5'       | 5'       | 5'       | 5'       |
| Minimum Rear Yard Setback           | 10'      | 10'      | 10'      | 10'      | 10'      |
| Minimum Building Separation         | 10'      | 10'      | 10'      | 10'      | 10'      |
| Maximum Height (# of stories)       | 3        | 3        | 3        | 3        | 3        |
| Minimum Heated SF per Home          | 1,400 SF | 1,800 SF | 1,800 SF | 2,000 SF | 2,200 SF |
| **Maximum % of SF Detached Lot Type | 15%      | 35%      | 35%      | No Max   | No Max   |

- \*40’ LOTS ARE RESTRICTED TO AGE-RESTRICTED NEIGHBORHOODS ONLY.**
- \*\*ANY LOT ALLOCATION FROM A SMALLER CATEGORY MAY MOVE TO A LARGER CATEGORY.**
9. The front yard of each lot shall be sodded and planted with at least one 3” caliper in size hardwood tree.
10. The proposed amenities shall be required as shown on the site plan and the pictures shown on pages 10, 14, 15, 16, 17 28, 29, 57 and 66 of the applicant’s narrative submitted with this application per the approval of the Community and Economic Development Department Director. The amenity area must be started in the first phase of construction. No more than 250 single-family detached homes shall receive a certificate of occupancy (CO) prior to the Central Amenity Center being substantially completed as described on page 19 of the applicant’s narrative. This shall include at minimum the clubhouse, swim center with lap pool with children’s play area, tennis center with lighted courts, pickle ball courts, great lawn with pavilion for outdoor functions, and mail kiosk. Certain elements, such as additional courts may be phased in as demand dictates. Additional CO’s may be granted at the discretion of the Community and Economic Development Director, if sufficient progress is being made on the amenity.
11. Covenants shall be put in place by the developer restricting against the parking of boats, trailers, and campers within driveways or streets. In addition, no on street parking shall be permitted for vehicles.
12. No more than 10% of the units within the proposed community storage facility may be leased to non-residents of the proposed development. There are no restrictions for non-resident use of any commercially operated storage facility that is located within the Commercial District.
13. A Uniform Sign Plan as identified within Section 9-18-7-4 of the Unified Land Development Code shall be required from the developer and is subject to approval by the Gainesville Community Development Director. All signs associated with residential uses shall be limited to indirect lighting. All signs shall be located outside of utility areas and shall not block visibility of vehicular traffic.

14. All proposed detention ponds shall be fenced and landscaped in order to mitigate the view from all roads and adjacent properties. All fencing and landscaping materials shall be approved by the Community and Economic Development Department Director.
15. A site shall be made available within the boundaries of the proposed development to the City of Gainesville for a school consisting of twenty (20) acres of land which meets the criteria established by the Georgia State School Board for such a public school. This site shall be made available by the developer without charge for the land, at any time within seven (7) years after the developer has provided paved access to the site. Alternatively, the School Board may elect to receive an amount equal to the Developer’s per acre purchase price for 20 acres paid in two installments within 7 years of a land development permit being issued. The School Board shall identify a potential site no later than 180 days from closing, excluding any portions of the property that have been presented as Phase 1 of the community.
16. The developer agrees to make available an additional twenty (20) acres, for a total of forty (40) acres, if the City of Gainesville has a need for a second school site. The Gainesville School Board would be required to pay fair market value for this last twenty (20) acres. The School Board shall identify a potential site no later than 180 days from closing, excluding any portions of the property that have been presented as Phase 1 of the community.
17. A site shall be made available within the boundaries of the proposed development to the City of Gainesville for a fire station and a precinct for the police department consisting of not more than two (2) acres of land which will be designated by the developer and reasonably approved by the Gainesville City Council for such public services. This site shall be made available by the developer without charge for the land, at any time within seven (7) years after the developer has provided paved access to the site. This site has been identified on the Concept Plan and the City of Gainesville shall have 180 days from closing to determine if the site meets their requirements or if another site is preferred, however any portions of the property that have been presented as Phase 1 of the community shall be excluded.
18. The plan shall include a fifty (50’) foot perimeter buffer separating all portions of the development from the existing single-family communities to the south of the project site. The specific parcels are shown on the buffer exhibit attached. The composition of this buffer, including any fencing deemed necessary, shall be subject to final approval by the Community and Economic Development Department Director.
19. Minimum five foot (5’) wide sidewalks with a two foot (2’) grass beauty strip shall be required as shown on the Pedestrian Access Plan filed with this request. Applicant, at his sole discretion, shall substitute a five foot (5’) sidewalk with a ten foot (10’) multi-use trail (asphalt or concrete) where indicated on the Pedestrian Access Plan to be maintained by the Homeowners Association (HOA).
20. All new streets shall meet the standards within the current Gainesville Unified Land Development Code, unless varied herein. All proposed residential uses, commercial uses and amenities shall provide for pedestrian connectivity throughout the development. All costs associated with the improvements shall be at the full expense of the developer.
21. All access point design for the subject property shall be submitted for review and approval by the Gainesville Public Works Director, Hall County and/or the Georgia Department of Transportation. The main access road, from Old Cornelia Highway to Applicant’s property shall be constructed by the City of Gainesville at its expense. Applicant shall be responsible for access beyond this point and any other access points to the property.

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# MAPS & SURVEYS

OF GAINESVILLE TOWNSHIP

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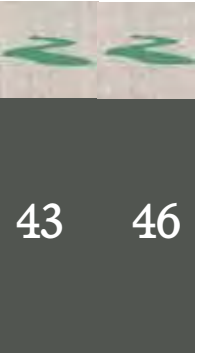
Regional Activity Map  
ALTA Boundary Survey  
Conceptual Master Plan  
Land Use Plan  
Pedestrian Access Plan  
Proposed Open Space Plan  
Proposed Entrance Rendering  
Proposed Amenity Rendering

View  
Map

MAPS & SURVEYS

Regional Activity Map

Fold open to view



GAINESVILLE  
TOWNSHIP

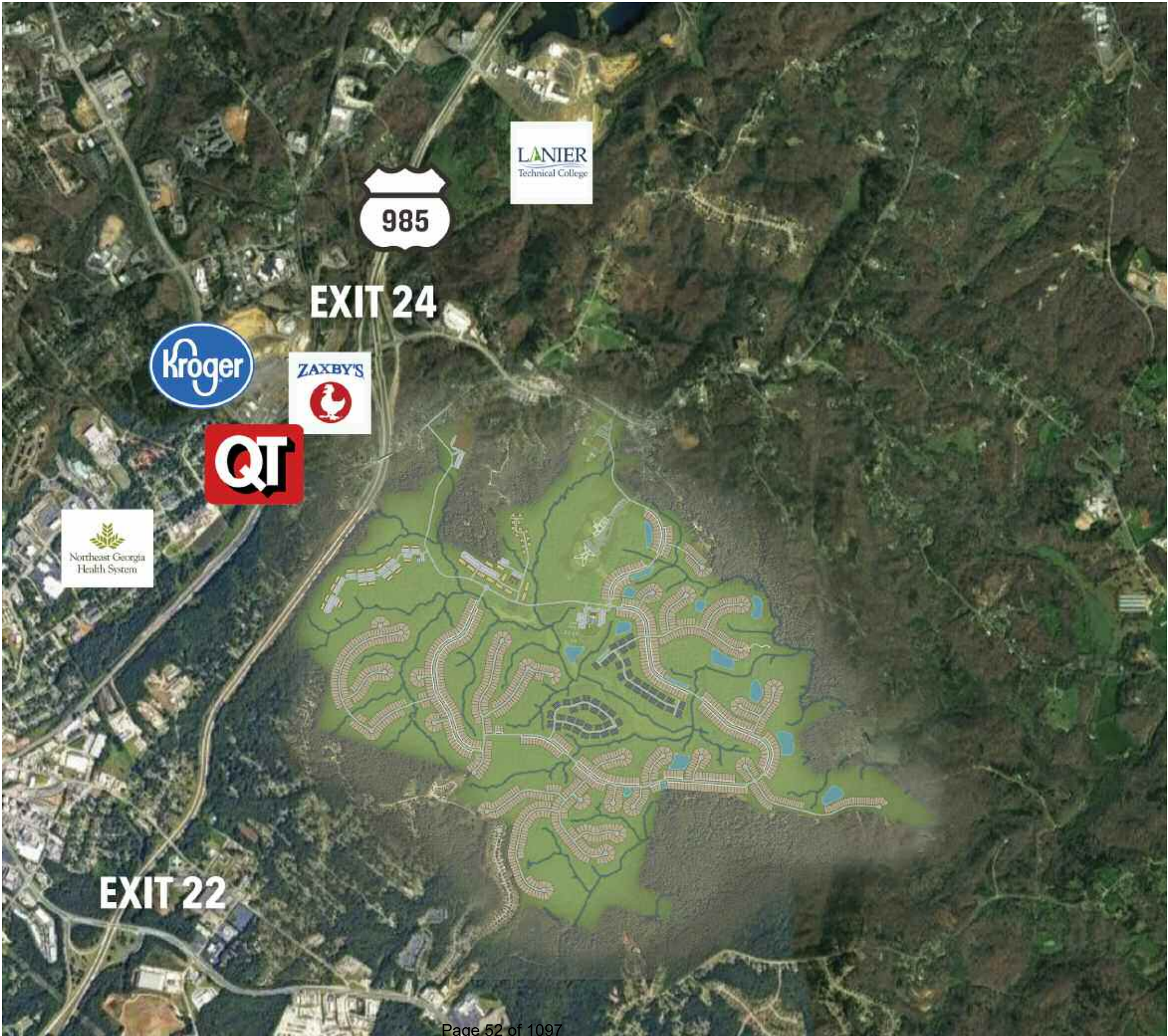


GAINESVILLE TOWNSHIP

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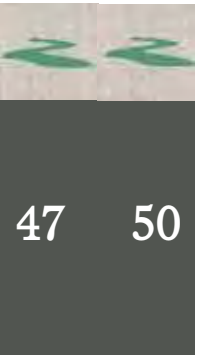


MAPS & SURVEYS

ALTA Boundary Survey

Sheet 1 of 5

Fold open to view



GAINESVILLE  
TOWNSHIP



GAINESVILLE TOWNSHIP



Page 54 of 1097

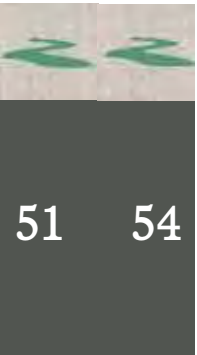


MAPS & SURVEYS

ALTA Boundary Survey

Sheet 2 of 5

Fold open to view



GAINESVILLE TOWNSHIP

GAINESVILLE  
TOWNSHIP





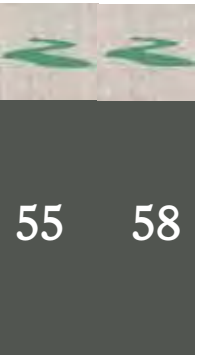


MAPS & SURVEYS

ALTA Boundary Survey

Sheet 3 of 5

Fold open to view



GAINESVILLE  
TOWNSHIP



GAINESVILLE TOWNSHIP

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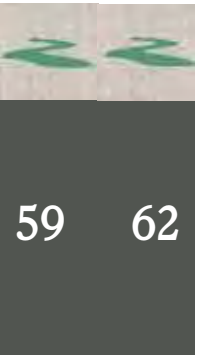


MAPS & SURVEYS

ALTA Boundary Survey

Sheet 4 of 5

Fold open to view



GAINESVILLE  
TOWNSHIP

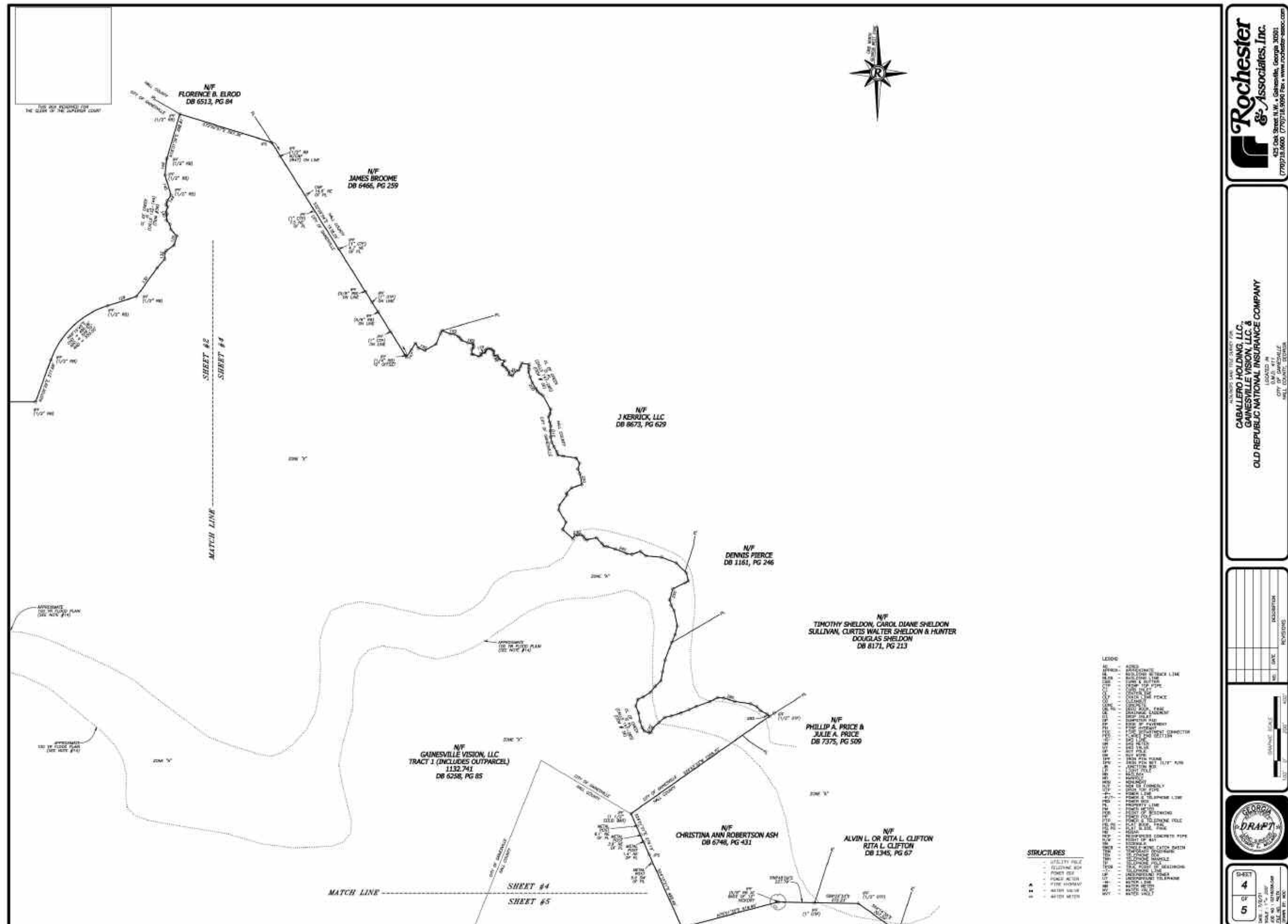


GAINESVILLE TOWNSHIP

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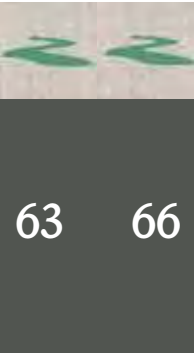


MAPS & SURVEYS

ALTA Boundary Survey

Sheet 5 of 5

Fold open to view



GAINESVILLE  
TOWNSHIP

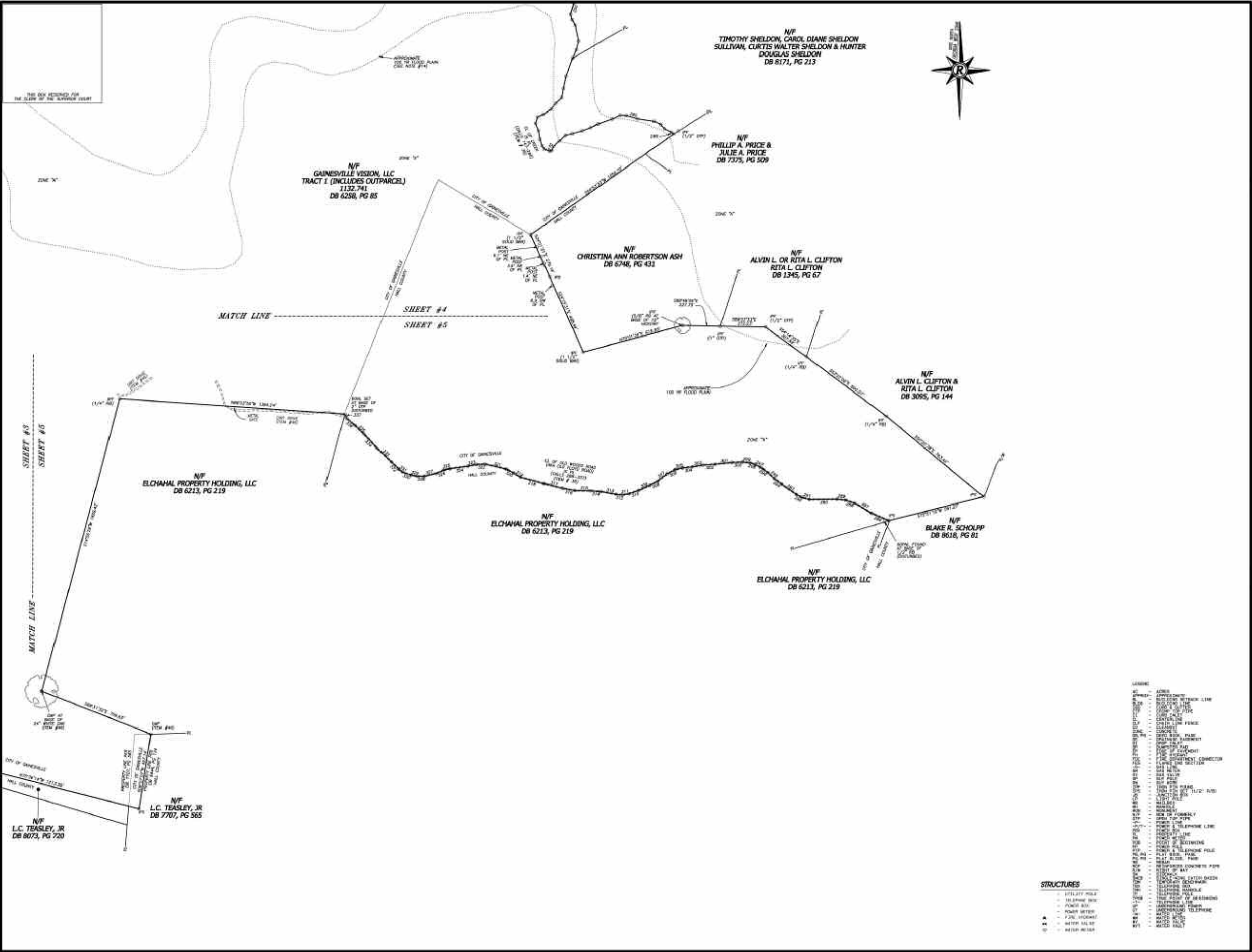


GAINESVILLE TOWNSHIP

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**Rochester & Associates, Inc.**  
435 Oak Street, N.W., Marietta, Georgia 30060  
(770) 575-5000 (770) 575-5001 Fax: (770) 575-5002

ALWAYS USE THE PLAT FOR  
CABALLERO HOLDING, LLC,  
GAINESVILLE VISION, LLC, &  
OLD REPUBLIC NATIONAL INSURANCE COMPANY

| NO. | DATE | DESCRIPTION |
|-----|------|-------------|
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |
|     |      |             |

SCALE: 1" = 400'

GEORGIA  
DRAFT

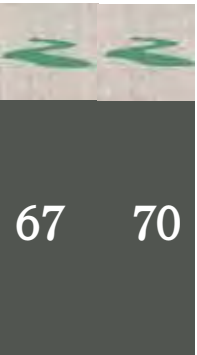
| DATE     | BY | 5 |
|----------|----|---|
| 5/1/2021 |    | 5 |

MAPS & SURVEYS

Conceptual Master Plan

Fold open to view

The development of the Community shall be controlled by this Narrative, the Master Plan, attached hereto, Zoning Condition Modifications referenced above and other exhibits provided as modified in the final approval. The Plan is considered conceptual in nature, and certain modifications to that Plan are anticipated as reflected in the specific language herein. Beyond such specific language, modifications of the location and arrangement of lots, roads, amenities and other improvements that do not materially conflict with specific standards and requirements of these conditions may be made by the Developer, so long as such modification does not materially alter the location or nature of improvements within 100 feet of the Community Boundary, or impact previously recorded residential sections, or change the land use or increase density.



GAINESVILLE TOWNSHIP

GAINESVILLE  
TOWNSHIP







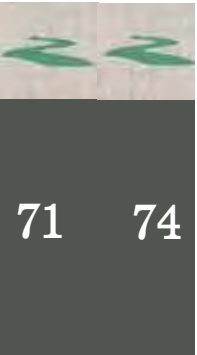


View  
Map

MAPS & SURVEYS

Land Use Plan

Fold open to view



GAINESVILLE  
TOWNSHIP



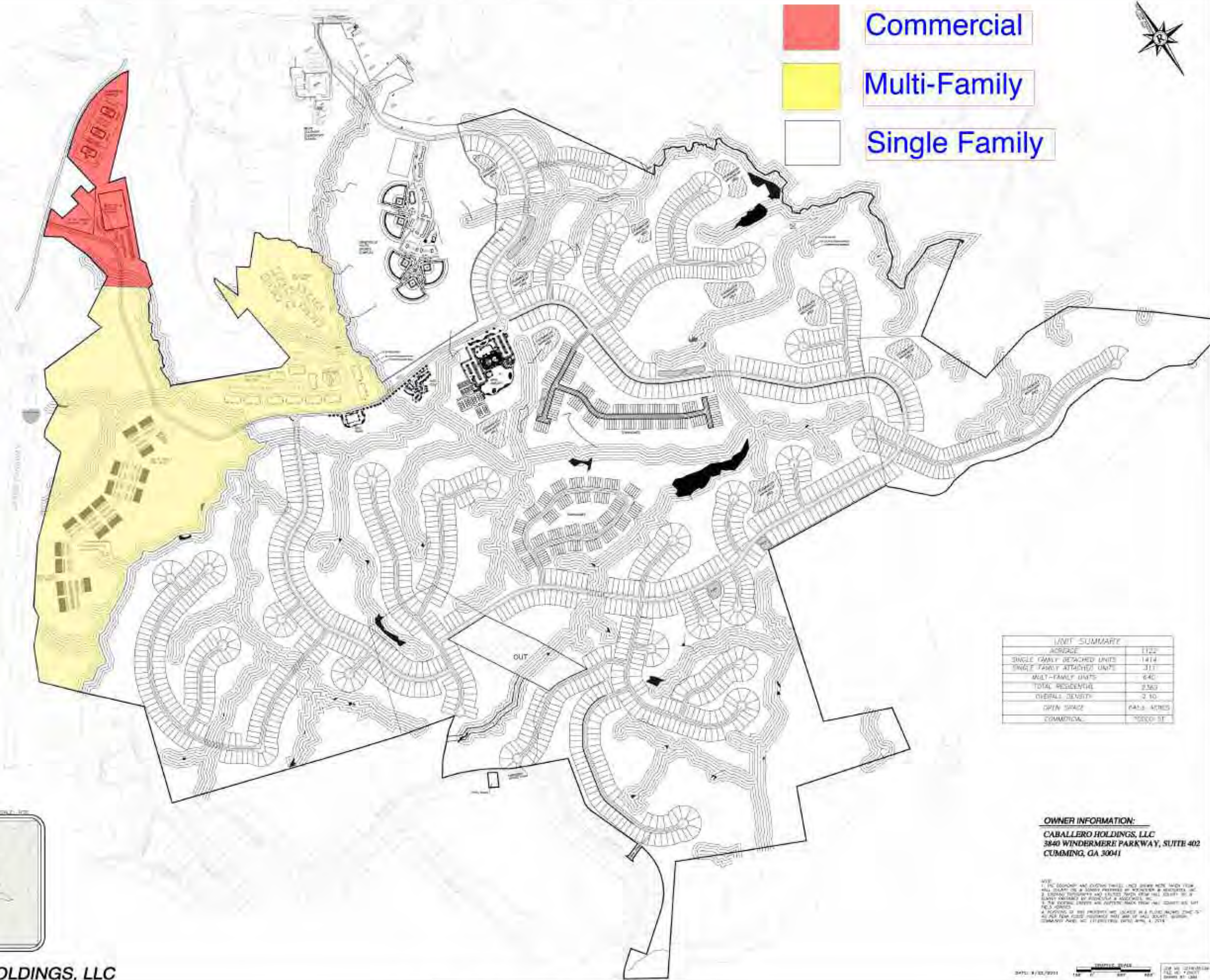
GAINESVILLE TOWNSHIP

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- Commercial
- Multi-Family
- Single Family



| UNIT SUMMARY                 |             |
|------------------------------|-------------|
| ACREAGE                      | 1122        |
| SINGLE FAMILY DETACHED UNITS | 1414        |
| SINGLE FAMILY ATTACHED UNITS | 311         |
| MULTI-FAMILY UNITS           | 640         |
| TOTAL RESIDENTIAL            | 2365        |
| OVERALL DENSITY              | 2.10        |
| OPEN SPACE                   | PAVED AREAS |
| COMMERCIAL                   | 100000 ST   |

**OWNER INFORMATION:**  
**CABALLERO HOLDINGS, LLC**  
 3840 WINDERMERE PARKWAY, SUITE 402  
 CUMMING, GA 30041

NOTES:  
 1. THE BOUNDARY AND LOT LINES SHOWN HEREIN WERE TAKEN FROM THE PLAT OF THE LAND AND ARE NOT TO BE CONSIDERED AS A GUARANTEE OF THE ACCURACY OF THE INFORMATION.  
 2. EXISTING UTILITIES AND EASEMENTS ARE SHOWN FOR INFORMATION ONLY.  
 3. THE EXISTING UTILITIES ARE SHOWN FROM THE PLAT OF THE LAND AND ARE NOT TO BE CONSIDERED AS A GUARANTEE OF THE ACCURACY OF THE INFORMATION.  
 4. THE PLAT OF THE LAND IS FILED IN THE PUBLIC RECORDS OF THE CLERK OF SUPERIOR COURT OF HALL COUNTY, GEORGIA.  
 DRAWN BY: J. L. LEE, P.E. (11/11/2011) (11/11/2011) (11/11/2011)



**CABALLERO HOLDINGS, LLC**

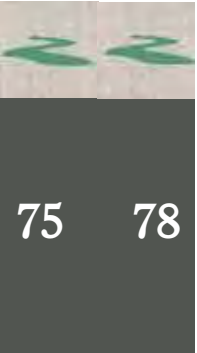
CITY OF GAINESVILLE  
 HALL COUNTY, GEORGIA



MAPS & SURVEYS

Pedestrian Access Plan

Fold open to view

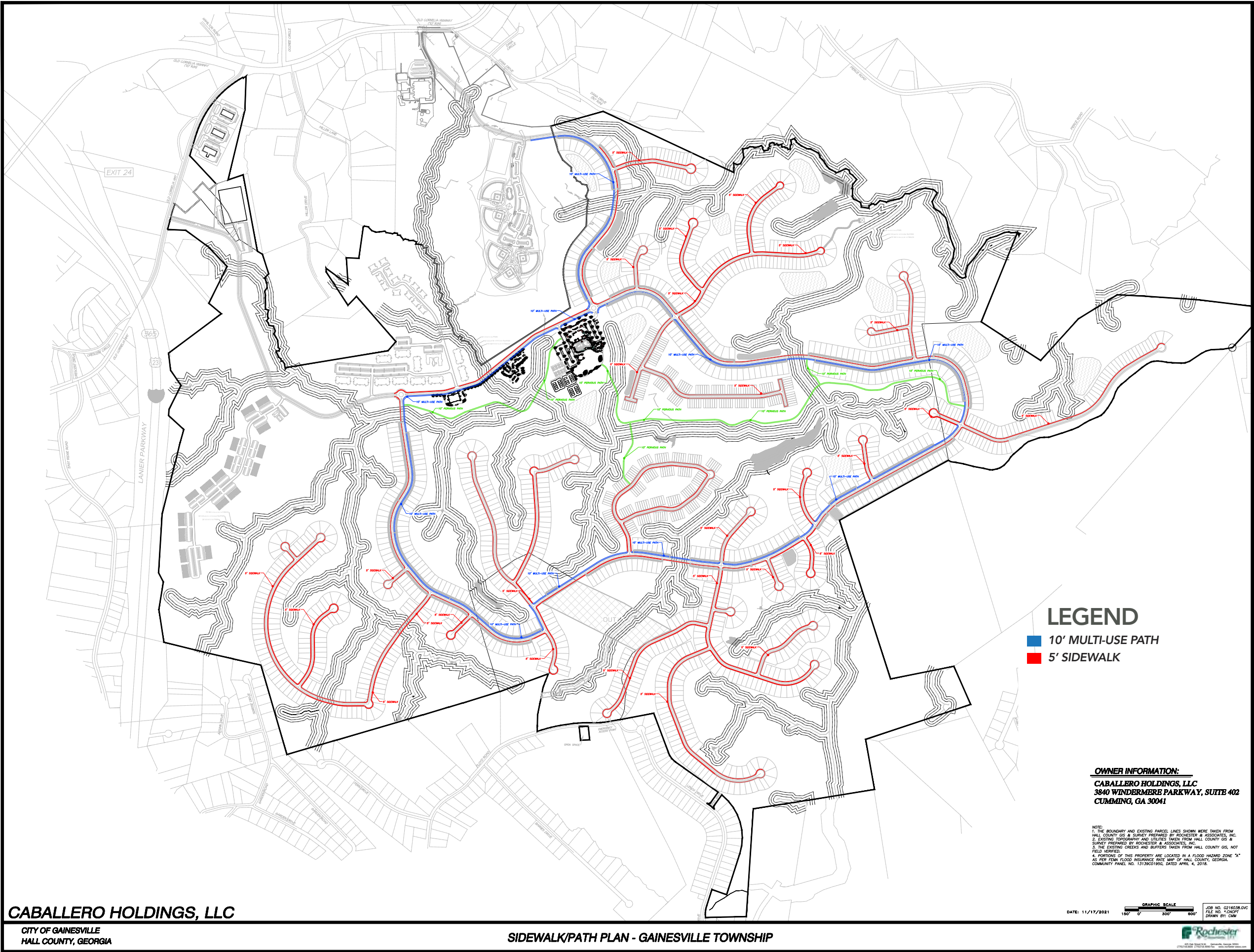


GAINESVILLE  
TOWNSHIP



GAINESVILLE TOWNSHIP





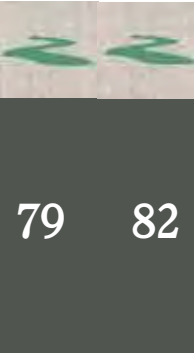
**CABALLERO HOLDINGS, LLC**  
CITY OF GAINESVILLE  
HALL COUNTY, GEORGIA

**SIDEWALK/PATH PLAN - GAINESVILLE TOWNSHIP**

MAPS & SURVEYS

Proposed  
Open Space Plan

Fold open to view



GAINESVILLE TOWNSHIP

GAINESVILLE  
TOWNSHIP



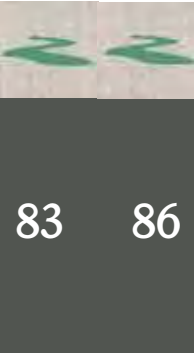




MAPS & SURVEYS

Proposed  
Entrance Rendering

Fold open to view



GAINESVILLE TOWNSHIP

GAINESVILLE  
TOWNSHIP







85

GAINESVILLE TOWNSHIP

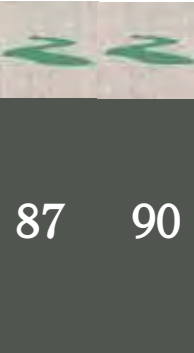




MAPS & SURVEYS

Proposed  
Amenity Rendering

Fold open to view



GAINESVILLE TOWNSHIP

GAINESVILLE  
TOWNSHIP









GAINESVILLE  
TOWNSHIP



v.11.02.21









CABALLERO HOLDINGS, LLC

CITY OF GAINESVILLE  
HALL COUNTY, GEORGIA

OVERALL LAND PLAN - GAINESVILLE TOWNSHIP

**OWNER INFORMATION:**

CABALLERO HOLDINGS, LLC  
3840 WINDERMERE PARKWAY, SUITE 402  
CUMMING, GA 30041

NOTE:  
1. THE BOUNDARY AND EXISTING PARCEL LINES SHOWN WERE TAKEN FROM  
HALL COUNTY GIS & SURVEY PROVIDED BY ROCHESTER & ASSOCIATES, INC.  
2. EXISTING UTILITIES AND LINES WERE TAKEN FROM HALL COUNTY GIS &  
SURVEY PROVIDED BY ROCHESTER & ASSOCIATES, INC.  
3. THE EXISTING DITCHES AND DRAINAGE DITCHES FROM HALL COUNTY GIS, NOT  
FIELD VERIFIED.  
4. PORTIONS OF THIS PROPERTY ARE LOCATED IN A FLOOD HAZARD ZONE "X"  
AS PER FIRM FLOOD INSURANCE RATE MAP OF HALL COUNTY, GEORGIA  
COMMUNITY FIRM NO. 121000150G, DATED APRIL 4, 2018.

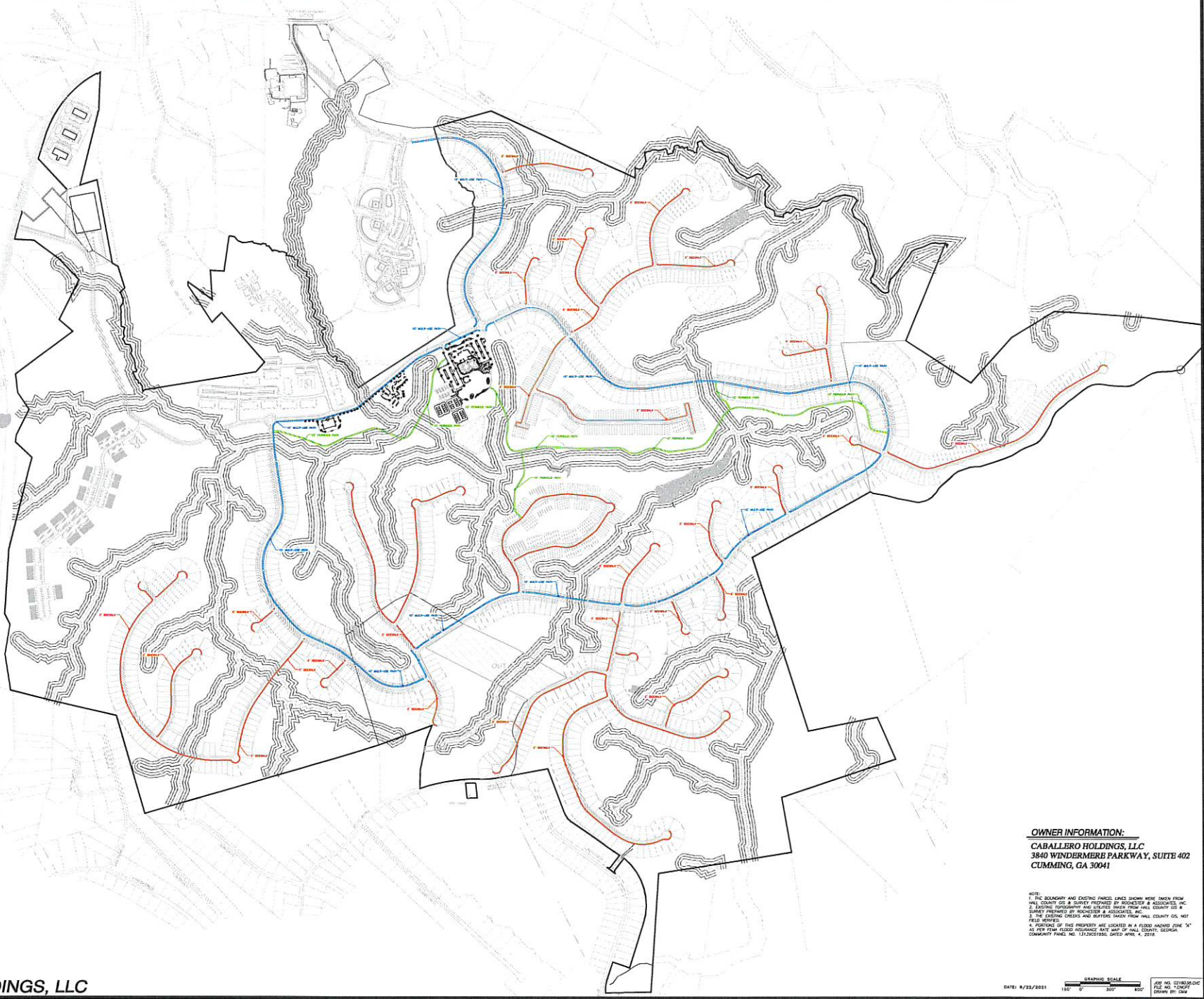
DATE: 8/22/2021  
JOB NO. 221813M.DWG  
FILE NO. "CONPT"  
DRAWN BY: JLF

GRAPHIC SCALE  
100' 0" 200' 0" 400' 0"

**Rochester**  
Associates, Inc.  
10000 N. W. 10th Ave., Suite 100  
Gainesville, FL 32609  
(352) 335-1100  
www.rochesterinc.com



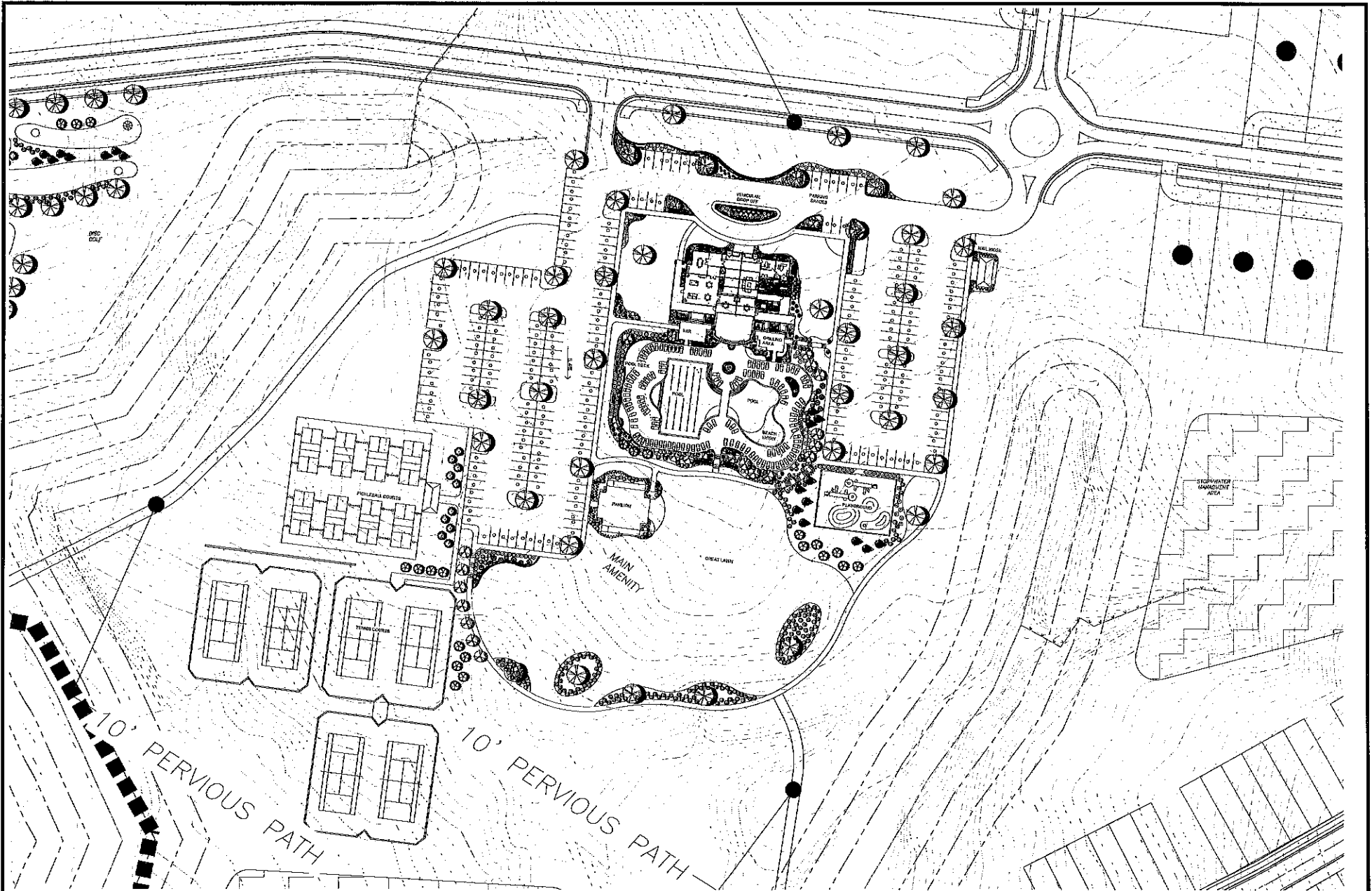




**OWNER INFORMATION:**  
CABALLERO HOLDINGS, LLC  
3840 WINDERMERE PARKWAY, SUITE 402  
CUMMING, GA 30041

NOTE:  
1. THE BOUNDARY AND EXISTING PARKED LINES SHOWN WERE TAKEN FROM  
HALL COUNTY GIS & SURVEY PROVIDED BY ROCHESTER & ASSOCIATES, INC.  
2. EXISTING TOPOGRAPHY AND ELEVATION DATA FROM HALL COUNTY GIS &  
SURVEY PROVIDED BY ROCHESTER & ASSOCIATES, INC.  
3. EXISTING DRAINAGE DITCHES AND DRAINAGE CANALS FROM HALL COUNTY GIS, NOT  
FIELD VERIFIED.  
4. PORTIONS OF THIS PROPERTY ARE LOCATED IN A FLOOD HAZARD ZONE "X"  
AS PER FIRM FLOOD INSURANCE RATE MAP OF HALL COUNTY, GEORGIA,  
COMMUNITY PANEL NO. 13120C002D, DATED APRIL 4, 2018.





OWNER INFORMATION:  
 CABALLERO HOLDINGS, LLC  
 3640 WINDERMERE PARKWAY, SUITE 402  
 CUMMING, GA 30041

CABALLERO HOLDINGS, LLC

CITY OF GAINESVILLE  
 HALL COUNTY, GEORGIA

MAIN AMENITY - GAINESVILLE TOWNSHIP

DATE: 9/27/2021

GRAPHIC SCALE

FOR INFO: 278-1000  
 877-222-2222  
 404-278-1000  
 404-278-1000  
 404-278-1000

EXHIBIT  
Areas of 50' Perimeter Buffer



IS, LLC

ZONING PLAN - GAINESVILLE TOWNSHIP



# **TRAFFIC IMPACT STUDY**

Prepared For  
**ROCHESTER & ASSOCIATES**

## **SUSSEX RESIDENTIAL DEVELOPMENT TRAFFIC IMPACT STUDY GAINESVILLE, GA**

April 13, 2021



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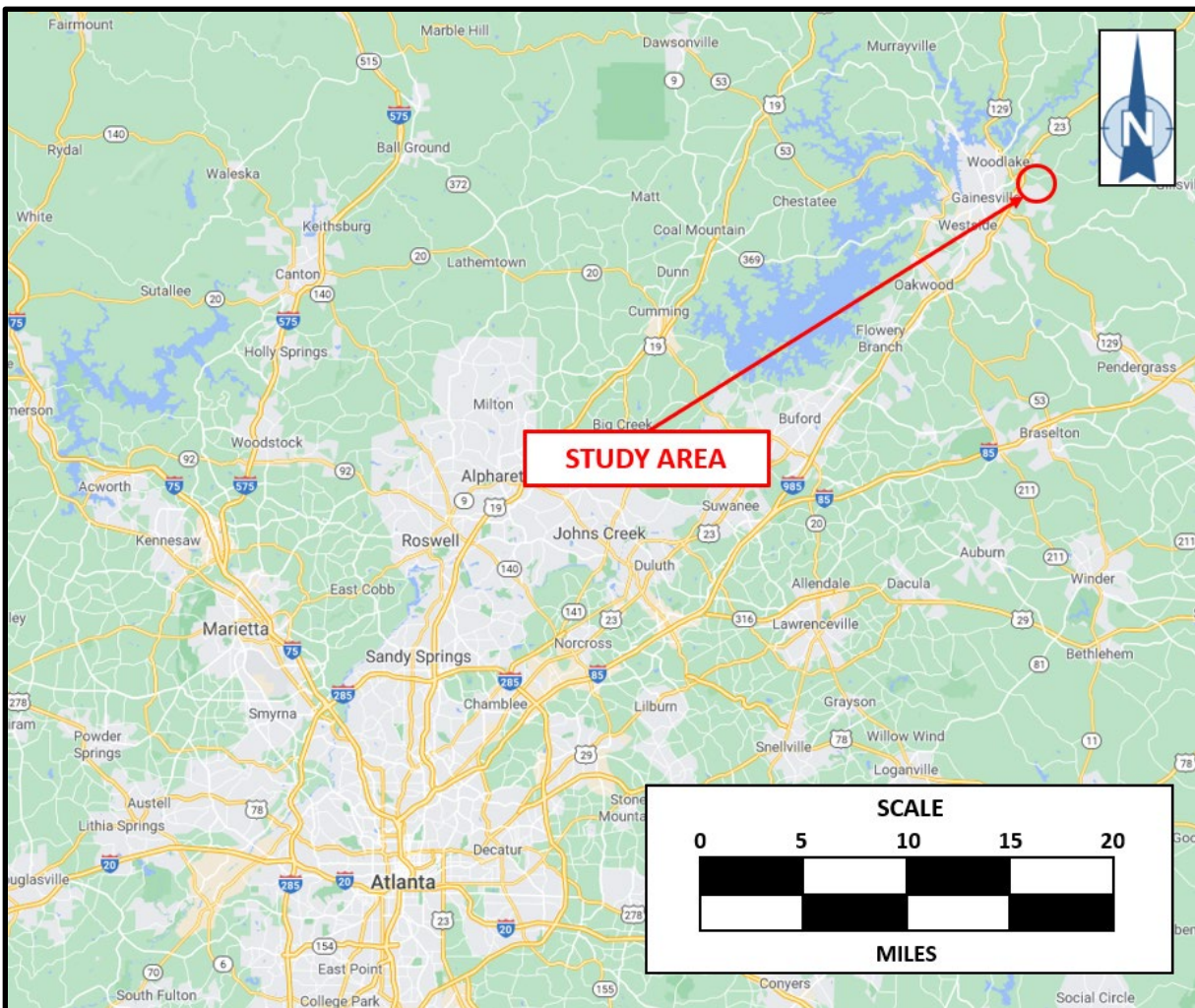


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# INTRODUCTION

The purpose of this study is to conduct a Traffic Impact Study (TIS) for the proposed residential development and a intersection analysis for the proposed site driveway on Old Cornelia Highway between White Sulphur Elementary School and Dana Drive. The development is located in Hall County, Georgia. The project location is shown in Figure 1.

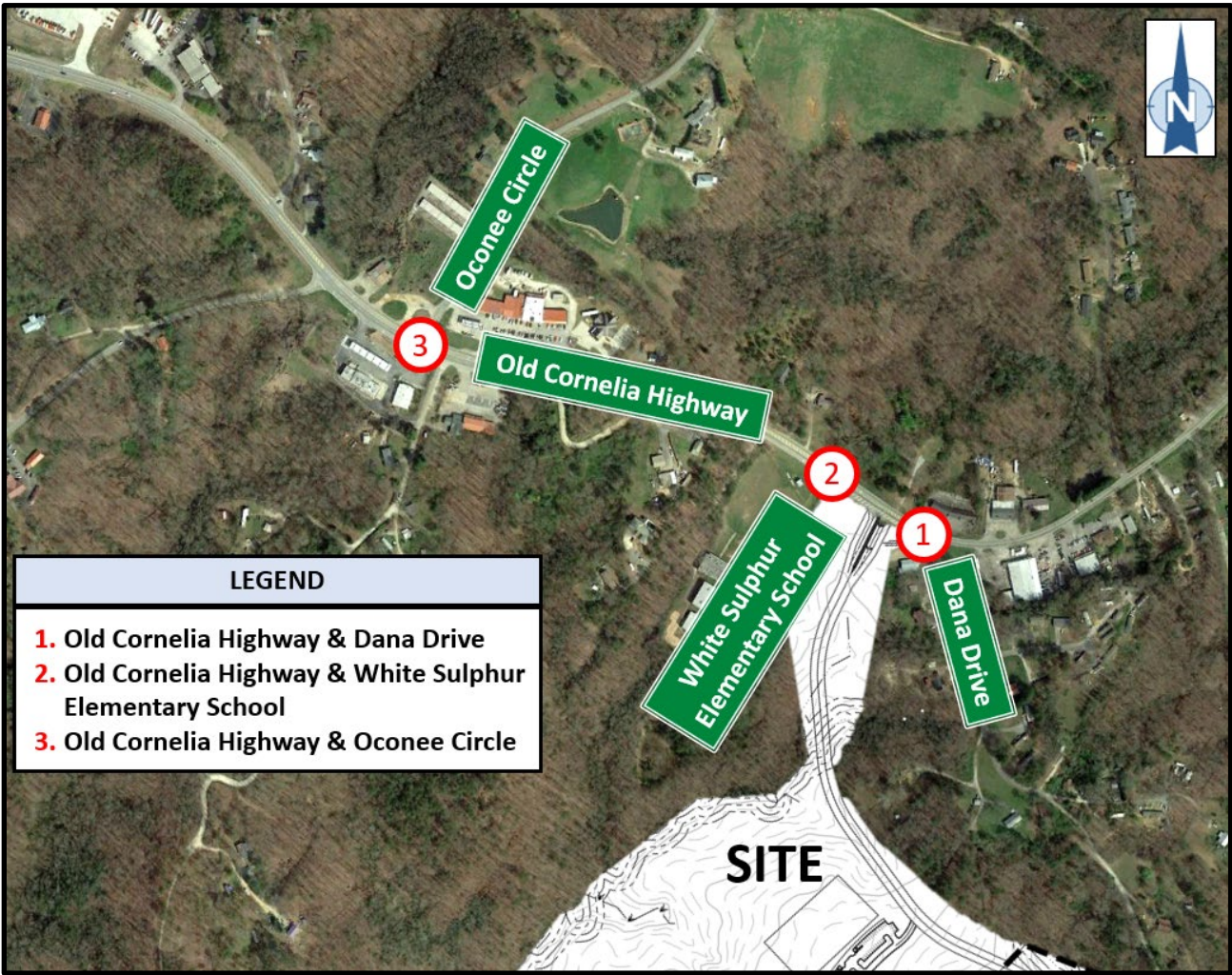
**Figure 1: PROJECT LOCATION MAP**





The study intersections are shown below in Figure 2.

Figure 2: STUDY INTERSECTION MAP



## NEARBY PLANNED PROJECTS

The area surrounding the proposed study area was searched for potential information regarding other relevant projects. The following public entities were examined for projects that overlap in scope with this project:

- Federally funded transportation projects in the Statewide Transportation Improvement Program (STIP)
- MPO funded transportation projects in the Transportation Improvement Program (TIP)
- Transportation projects in the Regional Transportation Program (RTP), funded from local, state, and federal planning partners
- Georgia Department of Transportation projects identified in the GeoPI website

There is a single planned project that would impact this study. Information regarding this project is shown below in Table 1 below.

**Table 1: OTHER PLANNED PROJECTS**

| PUBLIC DOMAIN | PROJECT NUMBER | PROJECT TITLE                 | PROJECT BOUNDARY/INTERSECTION                                  | PRELIMINARY (PE) YEAR | CONSTRUCTION (CST) YEAR |
|---------------|----------------|-------------------------------|----------------------------------------------------------------|-----------------------|-------------------------|
| GeoPI         | 132280-        | Old Cornelia Highway Widening | Jesse Jewell Parkway/Old Cornelia Highway to Joe Chandler Road | 2051                  | 2051                    |

There is a long range widening project on Old Cornelia Highway between Jesse Jewell Parkway and Joe Chandler Highway scheduled to begin construction in 2051.



## PLANNED DEVELOPMENT

The proposed Sussex development is a residential development on approximately 472 acres. The site plan provides for 1,226 single-family homes, 924 multi-family homes, 190 townhomes, and a youth baseball park. The development is proposed to initially have one access on Old Cornelia Highway between White Sulphur Elementary School and Dana Drive, with two future entrances planned on Old Cornelia Highway south of Jesse Jewell Parkway and Floyd Road.

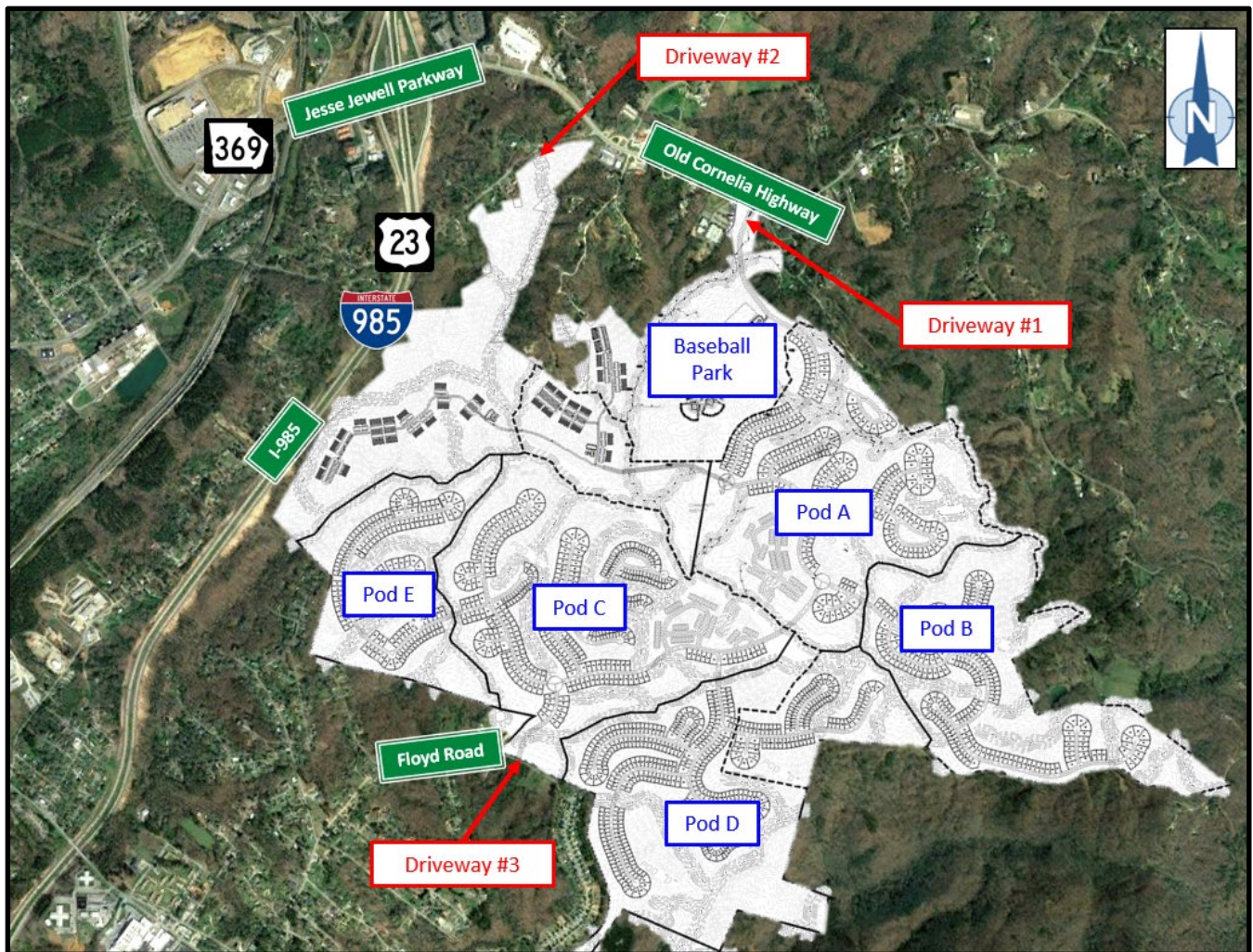
The development is projected to be constructed at a rate of 160 homes per year, and is anticipated to be built-out by 2035. For the purposes of the study, the development was evaluated in three phases:

- **Phase 1 (2025)** – A youth baseball park, 436 single family homes, 190 townhomes, and 174 multi-family homes.
- **Phase 2 (2030)** – 50 single family homes and 750 multi-family homes.
- **Phase 3 (2035)** – 740 single family homes

It was assumed that a second access point on Old Cornelia Highway would be open by 2030, and a third access point on Floyd Road would be open by 2035.

A site plan is shown in Figure 3. A larger scale site plan is included in Appendix A.

**Figure 3: SITE PLAN**



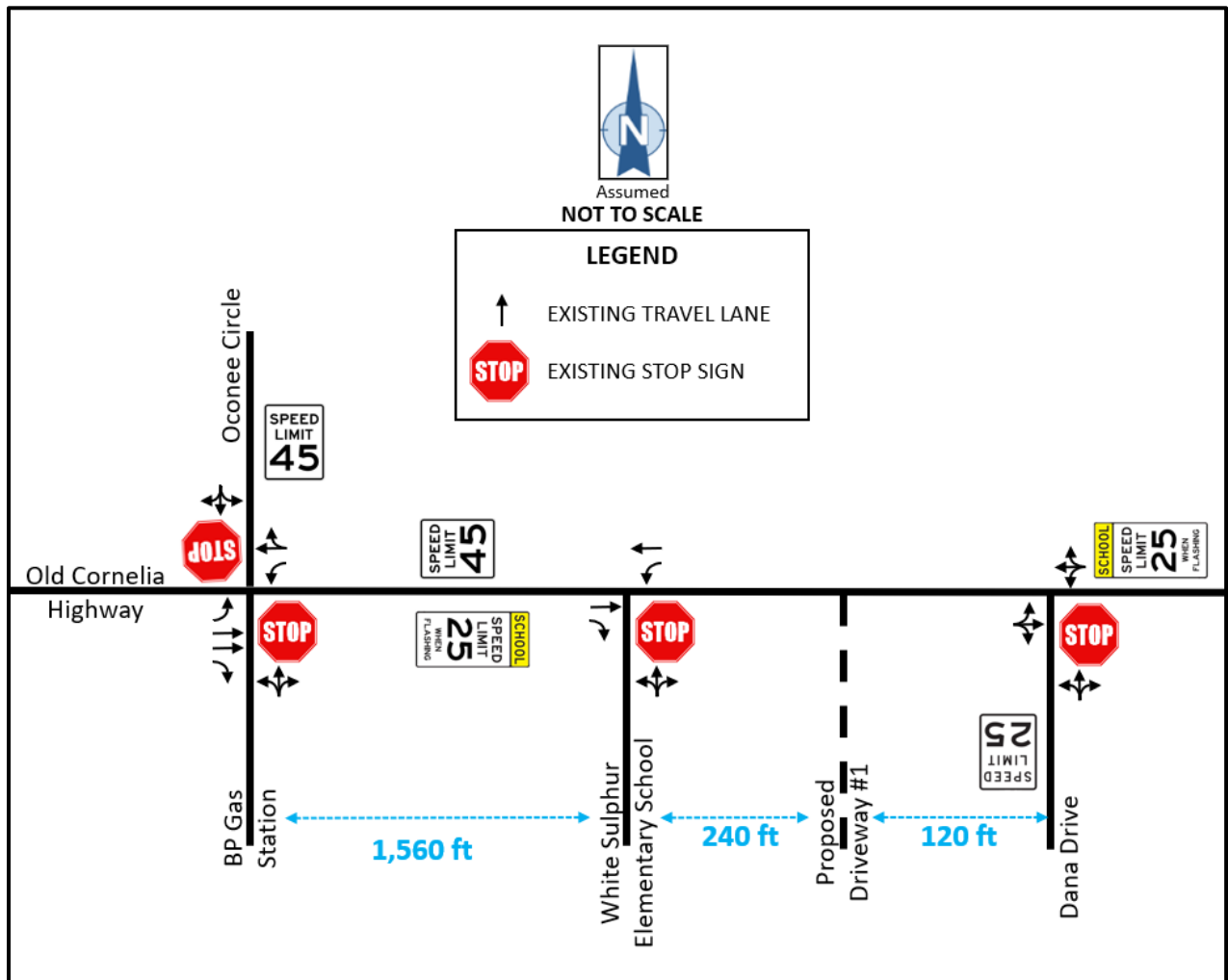


## EXISTING CONDITIONS

An inventory was conducted of the current conditions at the study intersections, including roadway geometry, traffic control, and traffic volumes.

The existing roadway geometry and traffic control in the study area are shown in Figure 4 below.

Figure 4: EXISTING CONDITIONS

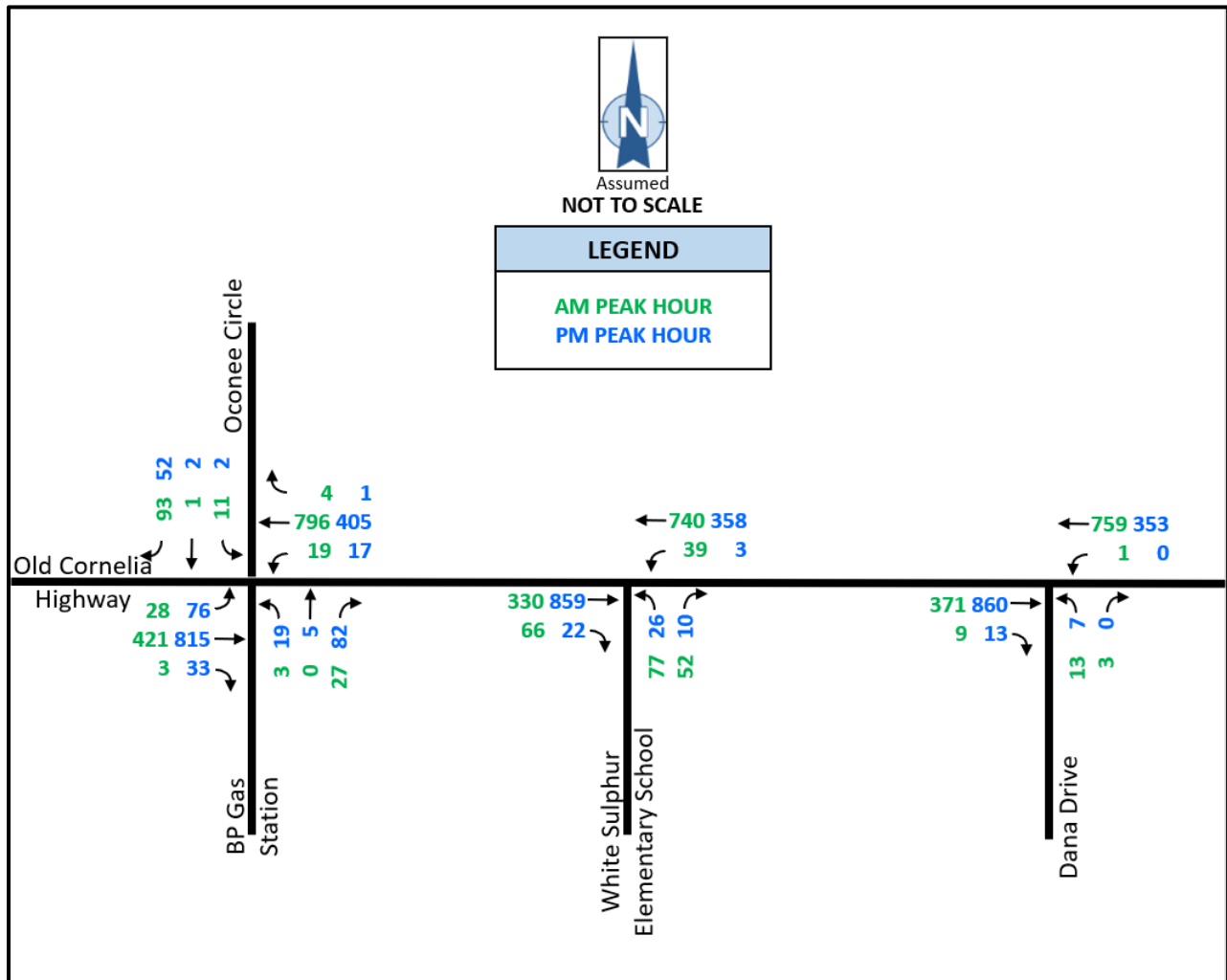


## TURNING MOVEMENT VOLUMES

Turning Movement Counts (TMC's) were conducted at the study intersection on Wednesday, February 17, 2021 from 7:00 AM to 9:00 AM and from 4:30 PM to 6:30 PM. Turning movement data is provided in Appendix B.

Existing Peak Hour turning movement volumes are shown in Figure 5 below. The AM Peak Hour was found to be 7:15 to 8:15 AM, and the PM Peak Hour was found to be 4:45 to 5:45 PM.

**Figure 5: EXISTING 2021 TRAFFIC VOLUMES**

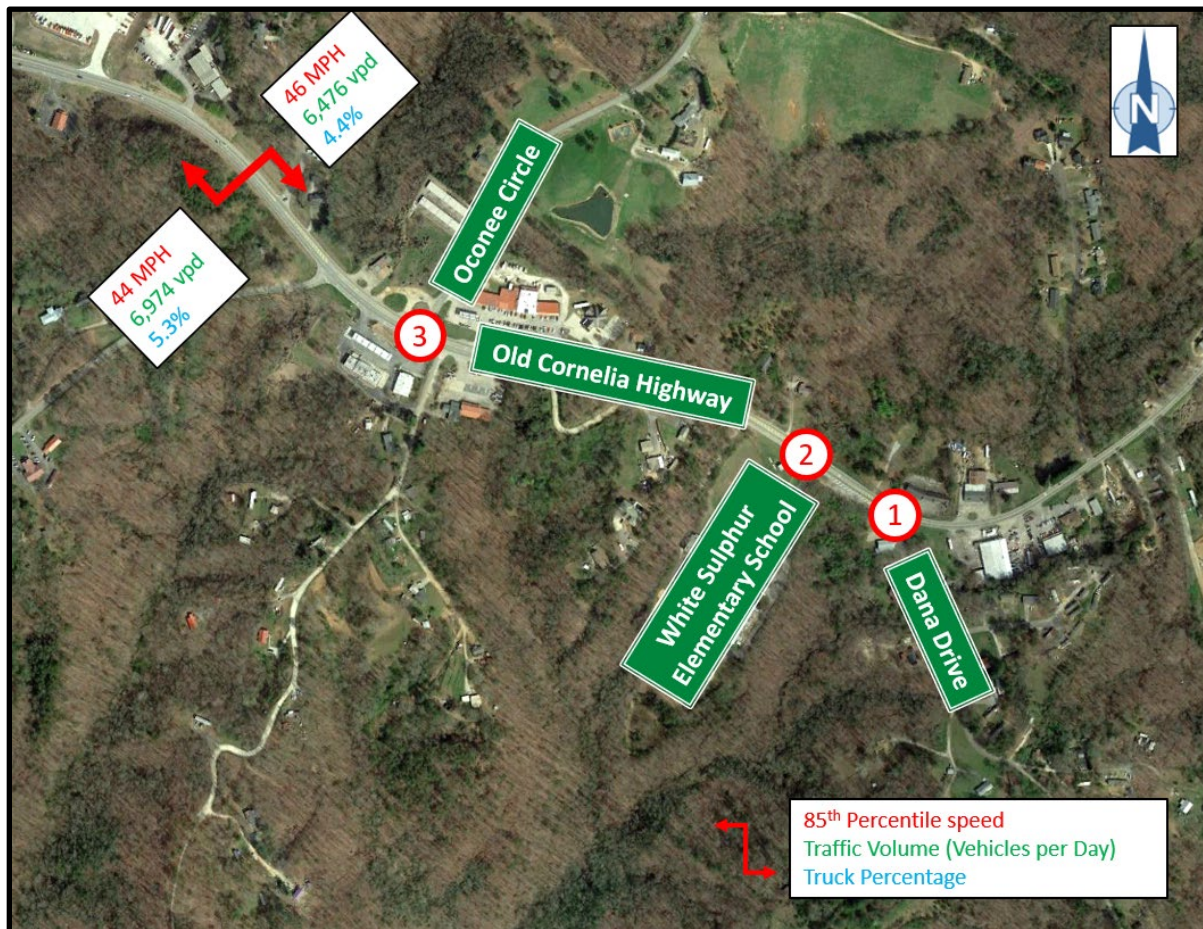




## AUTOMATIC TRAFFIC RECORDER

An Automatic Traffic Recorder (ATR) was placed on Old Cornelia Highway at GDOT Count Station #139-0210 to collect bi-directional 24-hour traffic data on Wednesday, February 17, 2021. The recorded daily volumes, truck percentages, and 85<sup>th</sup> percentile speed are shown in Figure 6 below. The ATR data can be found in Appendix C.

Figure 6: ATR DATA



## COVID-19 TRAFFIC VOLUME COMPARISON & ADJUSTMENT

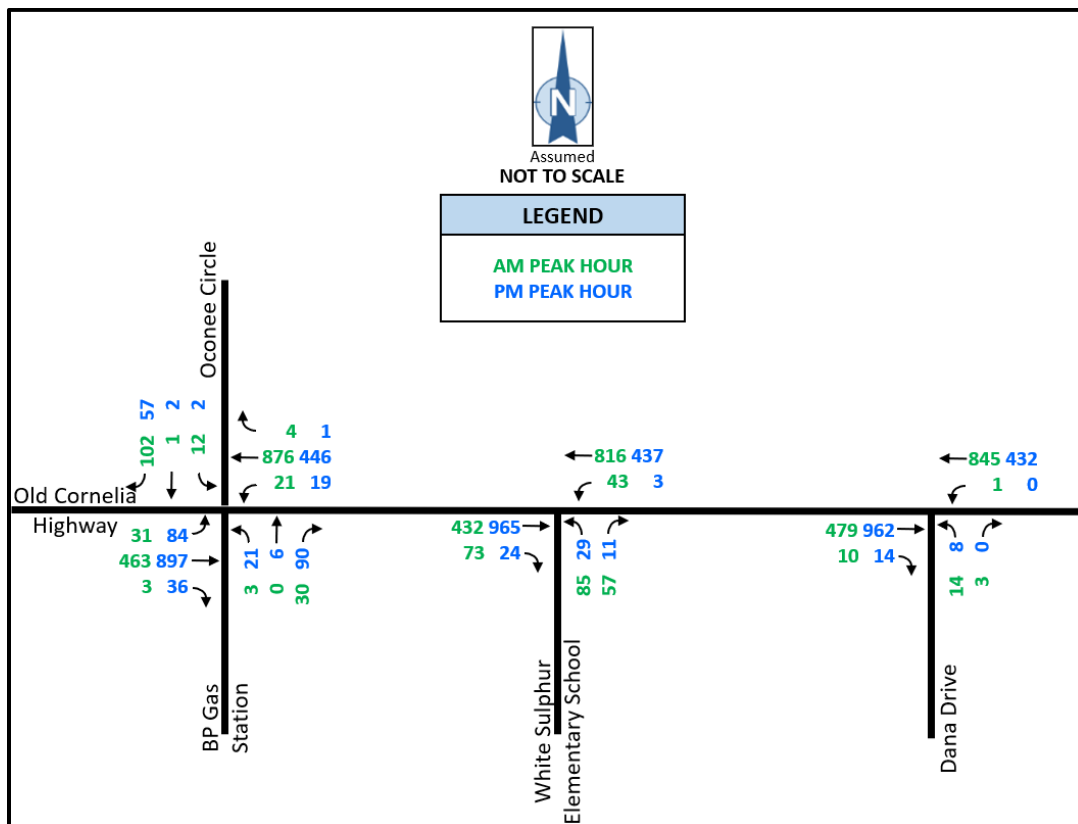
Due to the COVID-19 pandemic, GDOT issued guidance on the collection of Turning Movement Counts (TMC's). One example of guidance provided by the document issued in April 2020 states the following, "prior to collecting counts, the engineer should identify the nearest Continuous Count Station (CCS) or Short-Term count station from GDOT's Traffic Analysis and Data Application (TADA)...Turning movement counts should be factored based on the comparison of data available in TADA ..."

The ATR data was collected on GDOT count station (139-0210) near the proposed development. The raw count data from September 2018 showed a daily volume of 14,113 and a K-factor of 10.9%. After applying a growth rate of 1.5%, the daily volume at the GDOT count station was projected to grow to 14,758 vehicles per day in 2021. A comparison of the daily volume from the projected 2021 count station data and the collected volume from the 2021 ATR data revealed a reduction of 9%. The data found at this count station can be found in Appendix D.

Additionally, the volumes were balanced between intersections, using the high point for the most conservative estimate.

Figure 7 below shows the balanced 2021 TMC volume adjusted for pre-COVID traffic.

**Figure 7: 2021 TRAFFIC VOLUMES (ADJUSTED)**





# SAFETY EVALUATION

## CRASH HISTORY

Crash data was analyzed to identify collision-prone movements at the study intersection. Data was obtained from the Georgia Electronic Accident Reporting System (GEARS) for the five most recent years. Detailed crash data is provided in Appendix E.

Table 2 summarizes the crash frequency at the intersection of Old Cornelia Highway and Dana Drive.

**Table 2: CRASH DATA SUMMARY, OLD CORNELIA HWY @ DANA DR**

| YEAR         | TOTAL CRASHES | INJURY CRASHES/ INJURIES | FATAL -ITIES | COLLISION WITH VEHICLE |          |          |            | COLLISION WITH ANIMAL OR STRUCTURE |
|--------------|---------------|--------------------------|--------------|------------------------|----------|----------|------------|------------------------------------|
|              |               |                          |              | RIGHT-ANGLE            | HEAD ON  | REAR END | SIDE-SWIPE |                                    |
| 2016         | 1             | 1/1                      | 0            | 0                      | 0        | 0        | 0          | 1                                  |
| 2017         | 0             | 0/0                      | 0            | 0                      | 0        | 0        | 0          | 0                                  |
| 2018         | 1             | 0/0                      | 0            | 0                      | 0        | 0        | 0          | 1                                  |
| 2019         | 1             | 0/0                      | 0            | 0                      | 0        | 1        | 0          | 0                                  |
| 2020         | 1             | 0/0                      | 0            | 1                      | 0        | 0        | 0          | 0                                  |
| <b>Total</b> | <b>4</b>      | <b>1/1</b>               | <b>0</b>     | <b>1</b>               | <b>0</b> | <b>1</b> | <b>0</b>   | <b>2</b>                           |

According to the crash history, collisions with an animal or structure were the most prominent type of crash, accounting for 50% of the total collisions in the past five years. No fatalities were reported during this time period.

Table 3 summarizes the crash frequency at the intersection of Old Cornelia Highway and White Sulphur Elementary School.

**Table 3: CRASH DATA SUMMARY, OLD CORNELIA HWY @ WHITE SULPHUR ELEMENTARY SCHOOL**

| YEAR         | TOTAL CRASHES | INJURY CRASHES/ INJURIES | FATAL -ITIES | COLLISION WITH VEHICLE |          |          |            | COLLISION WITH ANIMAL OR STRUCTURE |
|--------------|---------------|--------------------------|--------------|------------------------|----------|----------|------------|------------------------------------|
|              |               |                          |              | RIGHT-ANGLE            | HEAD ON  | REAR END | SIDE-SWIPE |                                    |
| 2016         | 0             | 0/0                      | 0            | 0                      | 0        | 0        | 0          | 0                                  |
| 2017         | 1             | 0/0                      | 0            | 0                      | 0        | 1        | 0          | 0                                  |
| 2018         | 0             | 0/0                      | 0            | 0                      | 0        | 0        | 0          | 0                                  |
| 2019         | 0             | 0/0                      | 0            | 0                      | 0        | 0        | 0          | 0                                  |
| 2020         | 0             | 0/0                      | 0            | 0                      | 0        | 0        | 0          | 0                                  |
| <b>Total</b> | <b>1</b>      | <b>0/0</b>               | <b>0</b>     | <b>0</b>               | <b>0</b> | <b>1</b> | <b>0</b>   | <b>0</b>                           |

According to the crash history, there was a single rear end collision in the past five years. No fatalities were reported during this time period.

Table 4 summarizes the crash frequency at the intersection of Old Cornelia Highway and Oconee Circle.

**Table 4: CRASH DATA SUMMARY, OLD CORNELIA HWY @ OCONEE CIR**

| YEAR         | TOTAL<br>CRASHES | INJURY<br>CRASHES/<br>INJURIES | FATAL<br>-ITIES | COLLISION WITH VEHICLE |            |             |                | COLLISION WITH<br>ANIMAL<br>OR STRUCTURE |
|--------------|------------------|--------------------------------|-----------------|------------------------|------------|-------------|----------------|------------------------------------------|
|              |                  |                                |                 | RIGHT-<br>ANGLE        | HEAD<br>ON | REAR<br>END | SIDE-<br>SWIPE |                                          |
| 2016         | 4                | 1/1                            | 0               | 1                      | 0          | 1           | 0              | 2                                        |
| 2017         | 10               | 2/3                            | 0               | 4                      | 1          | 1           | 2              | 2                                        |
| 2018         | 5                | 0/0                            | 0               | 1                      | 0          | 2           | 2              | 0                                        |
| 2019         | 2                | 1/3                            | 0               | 1                      | 0          | 0           | 1              | 0                                        |
| 2020         | 3                | 1/1                            | 0               | 1                      | 0          | 0           | 1              | 1                                        |
| <b>Total</b> | <b>24</b>        | <b>5/8</b>                     | <b>0</b>        | <b>8</b>               | <b>1</b>   | <b>4</b>    | <b>6</b>       | <b>5</b>                                 |

According to the crash history, right angle collisions were the most prominent type of crash, accounting for 33% of the total collisions in the past five years. No fatalities were reported during this time period.



# TRAFFIC PROJECTION METHODOLOGY

The methodology used to estimate future traffic growth included the examination of Hall County census data and historic trends from the nearby GDOT count stations.

## CENSUS DATA

The census data from the Hall County Strategic Plan developed in 2018 is shown in Table 5. The Strategic Plan is included in Appendix F.

**Table 5: CENSUS DATA: HALL COUNTY STRATEGIC PLAN**

| HALL COUNTY |            |          |                   |
|-------------|------------|----------|-------------------|
| YEAR        | POPULATION | % CHANGE | % CHANGE PER YEAR |
| 2010        | 189,684    | -        | -                 |
| 2040        | 371,570    | 95.9%    | 2.27%             |

Source: Hall County Strategic Plan (2018 – 2028)

The data shows an increase of the population in Hall County of 95.9%, or a yearly rate of 2.27%, between 2010 and 2040.

The most recent Hall County population data from the Atlanta Regional Commission (ARC) was developed in 2015 and is shown in Table 6. The ARC population data is included in Appendix G.

**Table 6: CENSUS DATA: ATLANTA REGIONAL COMMISSION**

| HALL COUNTY |            |          |                   |
|-------------|------------|----------|-------------------|
| YEAR        | POPULATION | % CHANGE | % CHANGE PER YEAR |
| 2015        | 200,586    | -        | -                 |
| 2050        | 289,128    | 44.1%    | 1.05%             |

Source: Atlanta Regional Commission, 2050 Population Forecast: Hall County

According to the ARC data, the population will see an increase of 44.1%, or a yearly rate of 1.05%, between 2015 and 2050.

## HISTORIC TRAFFIC DATA

The GDOT maintains multiple annual traffic count stations in the vicinity of the study area. This data was used to establish historic growth rates in the area. Figure 8 below shows the count stations in the study area.

**Figure 8: NEARBY GDOT COUNT STATIONS**

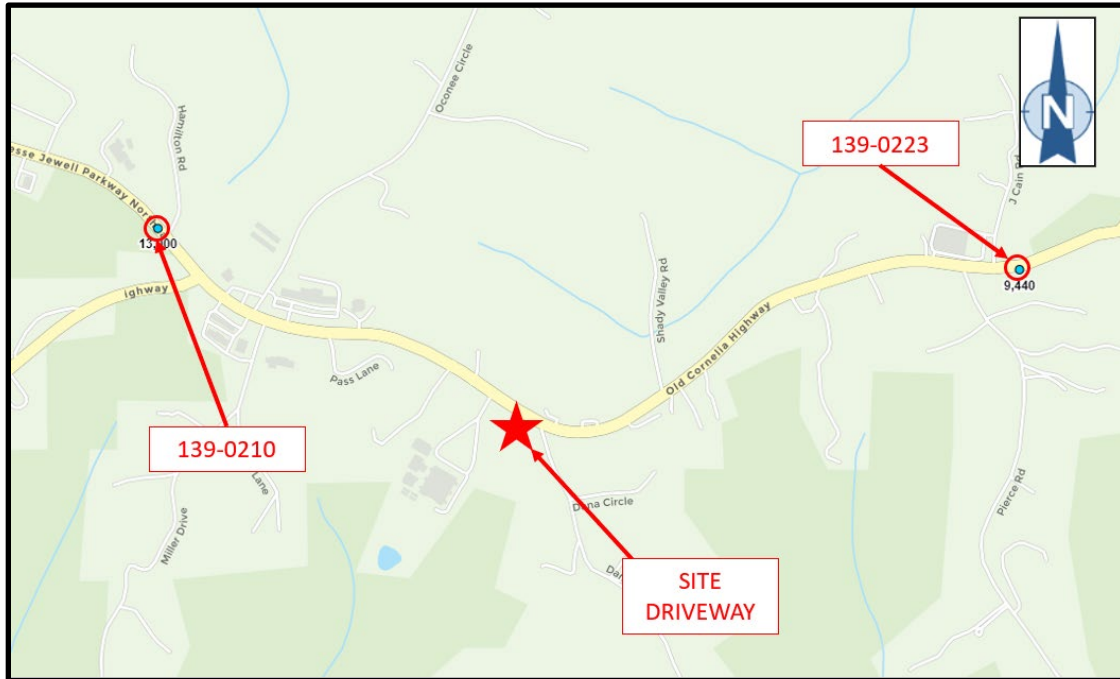


Table 7 summarizes the average annual daily traffic (AADT) reported by the GDOT for each of the years 2010 through 2020. Historic data reported by the GDOT for each of the count stations can be found in Appendix D.

**Table 7: HISTORIC TRAFFIC DATA**

| Year | GDOT Count Station 139-0210 | GDOT Count Station 139-0223 |
|------|-----------------------------|-----------------------------|
| 2010 | *10,900                     | *7,890                      |
| 2011 | *10,600                     | 9,170                       |
| 2012 | 10,964                      | *8,260                      |
| 2013 | *9,620                      | *8,440                      |
| 2014 | *9,620                      | *8,440                      |
| 2015 | *9,940                      | 9,300                       |
| 2016 | 11,184                      | *8,790                      |
| 2017 | *10,800                     | *8,850                      |
| 2018 | 14,113                      | *8,780                      |
| 2019 | *13,000                     | 9,540                       |
| 2020 | 12,442                      | -                           |

Source: GDOT Traffic Analysis & Data Application

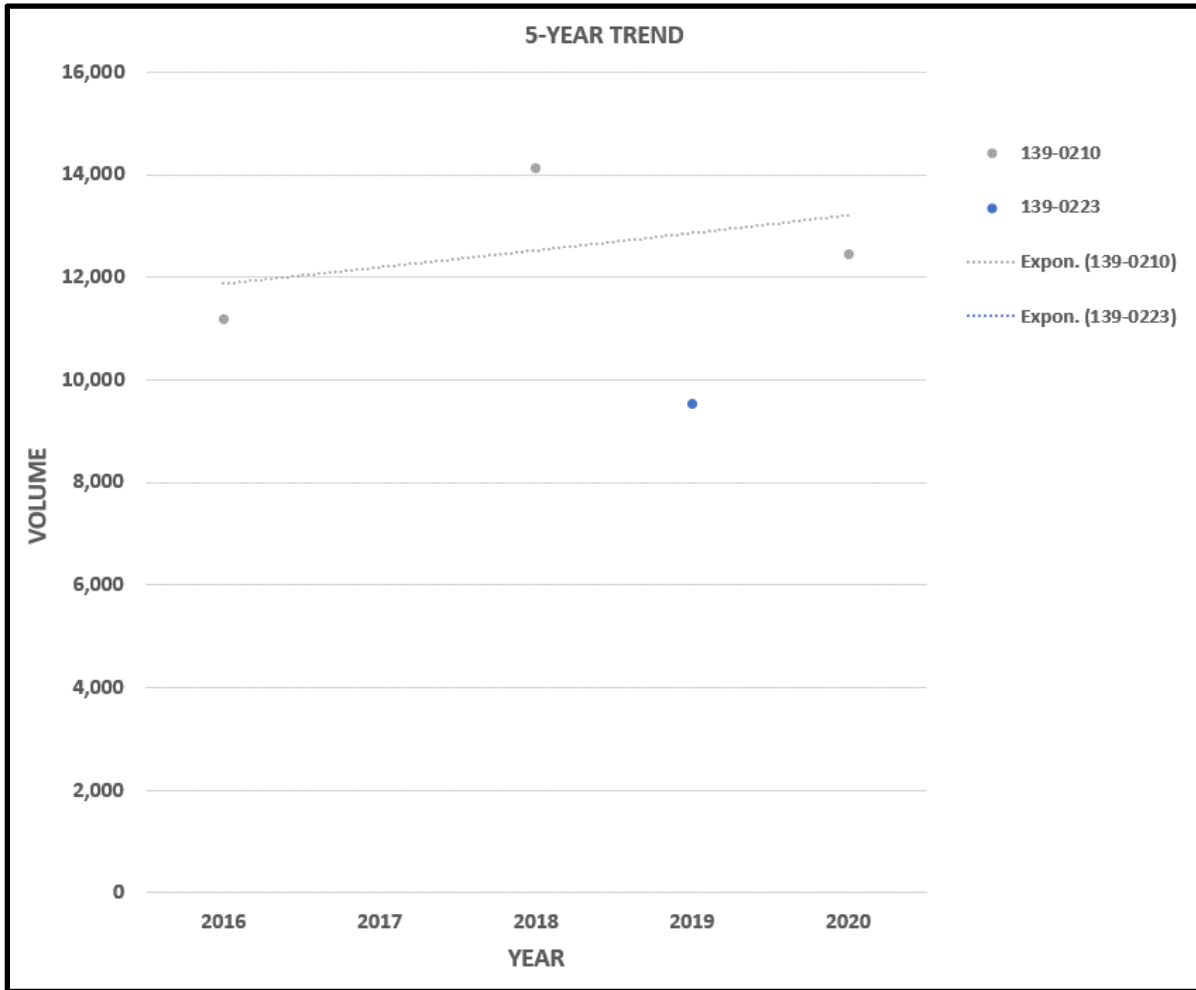
\*Estimated counts not used in trend analysis.



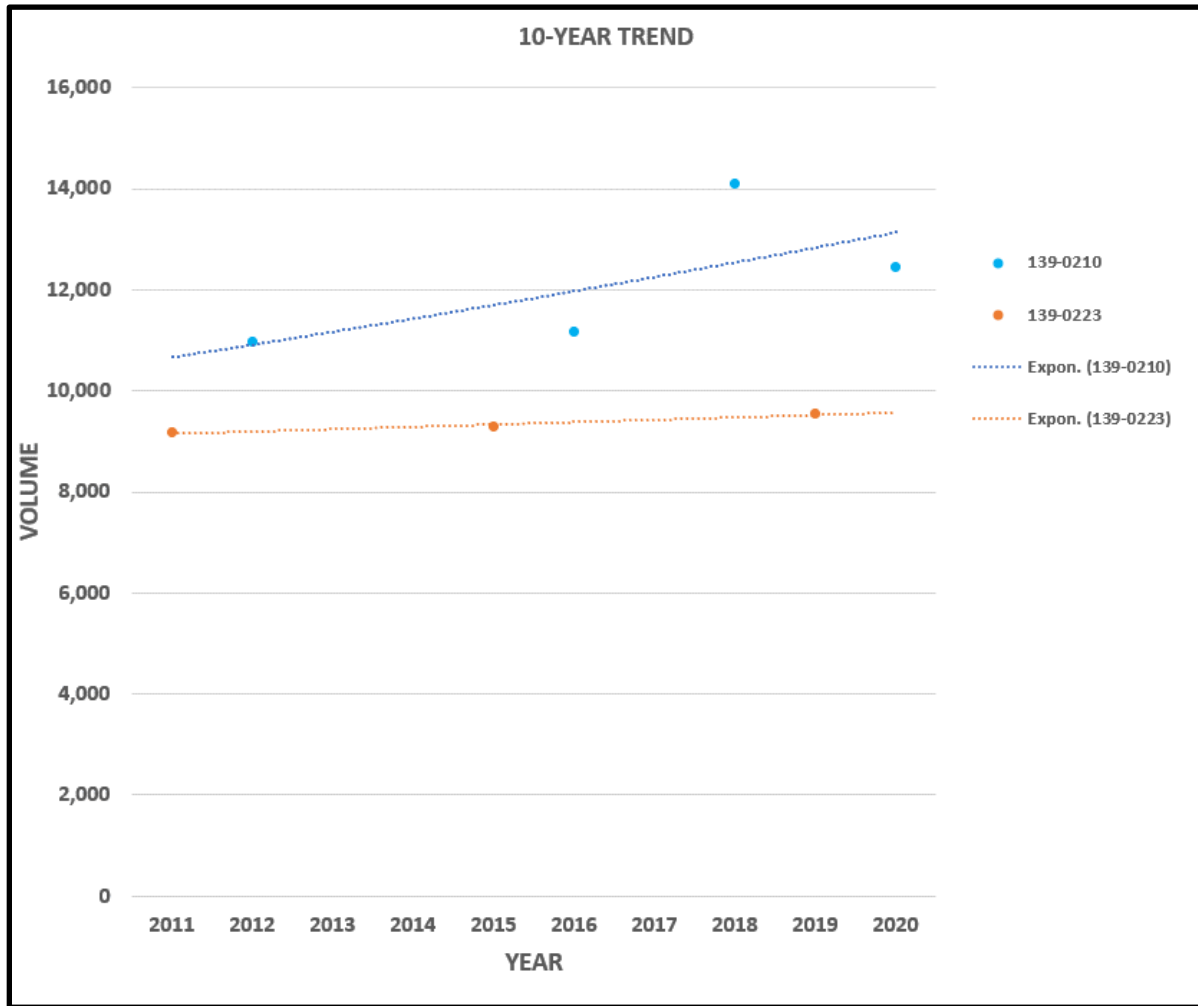
## TREND ANALYSIS

Figures 9 and 10, on the following pages, show graphs of the historic AADT as reported by the GDOT. A trend line is shown for each count station. Gaps in the graphs represent years for which data was estimated, which are not used in the analysis, per GDOT policy.

**Figure 9: 5-YEAR TREND LINES FOR GDOT COUNT STATIONS**



**Figure 10: 10-YEAR TREND LINES FOR GDOT COUNT STATIONS**



Growth rates were developed based on the 5-year and 10-year analyses of count station data shown above. Table 8 shows the resulting trend rates.

**Table 8: TREND ANALYSIS FOR COUNT STATION DATA**

| GDOT Count Stations                     | 5-year | 10-year |
|-----------------------------------------|--------|---------|
| 139-0210                                | 2.15%  | 1.27%   |
| 139-0223                                | 0.00%  | 0.40%   |
| Blended Trend Rates from Count Stations | 1.37%  | 0.95%   |

Note: Rates are calculated based on annual compounding.



## GROWTH RATE

The Hall County Strategic Plan projects an annual population growth rate of 2.27%. The ARC's population forecast for Hall County projects annual population growth rate to be 1.05% for the county. Based on the data available from the nearby GDOT count station, the growth trend was calculated to be 1.37% for the past five years, and 0.95% for the past ten years.

Based on these rates and the surrounding area, the background traffic growth rate was established to be **1.5%** from the Existing year (2021) to the Phase 3 Build year (2035), for the purposes of the study.

## GROWTH FACTOR

A growth factor was established by applying the growth rates to the following equation, shown below:

$$\text{Growth Factor} = (1 + r)^n$$

Where:

**r** = growth rate

**n** = number of years

The volumes projections were calculated using the following values as 'n', taken as the time period between the 2021 Existing year and each corresponding phase.

- Existing Year (2021) to Phase 1 Build Year (2025) – n=4
- Existing Year (2021) to Phase 2 Build Year (2030) – n=9
- Existing Year (2021) to Phase 3 Build Year (2035) – n=14

Growth factors are provided in Table 9.

**Table 9: GROWTH FACTORS**

| PROJECTED YEARS           |                           |                           |
|---------------------------|---------------------------|---------------------------|
| Phase 1 Build Year (2025) | Phase 2 Build Year (2030) | Phase 3 Build Year (2035) |
| 1.06                      | 1.14                      | 1.23                      |

Figures 11 through 13 on the following pages show the estimated No-Build traffic volumes at the study intersections for each Phase (2025, 2030, 2035).

Figure 11: NO-BUILD VOLUMES, 2025

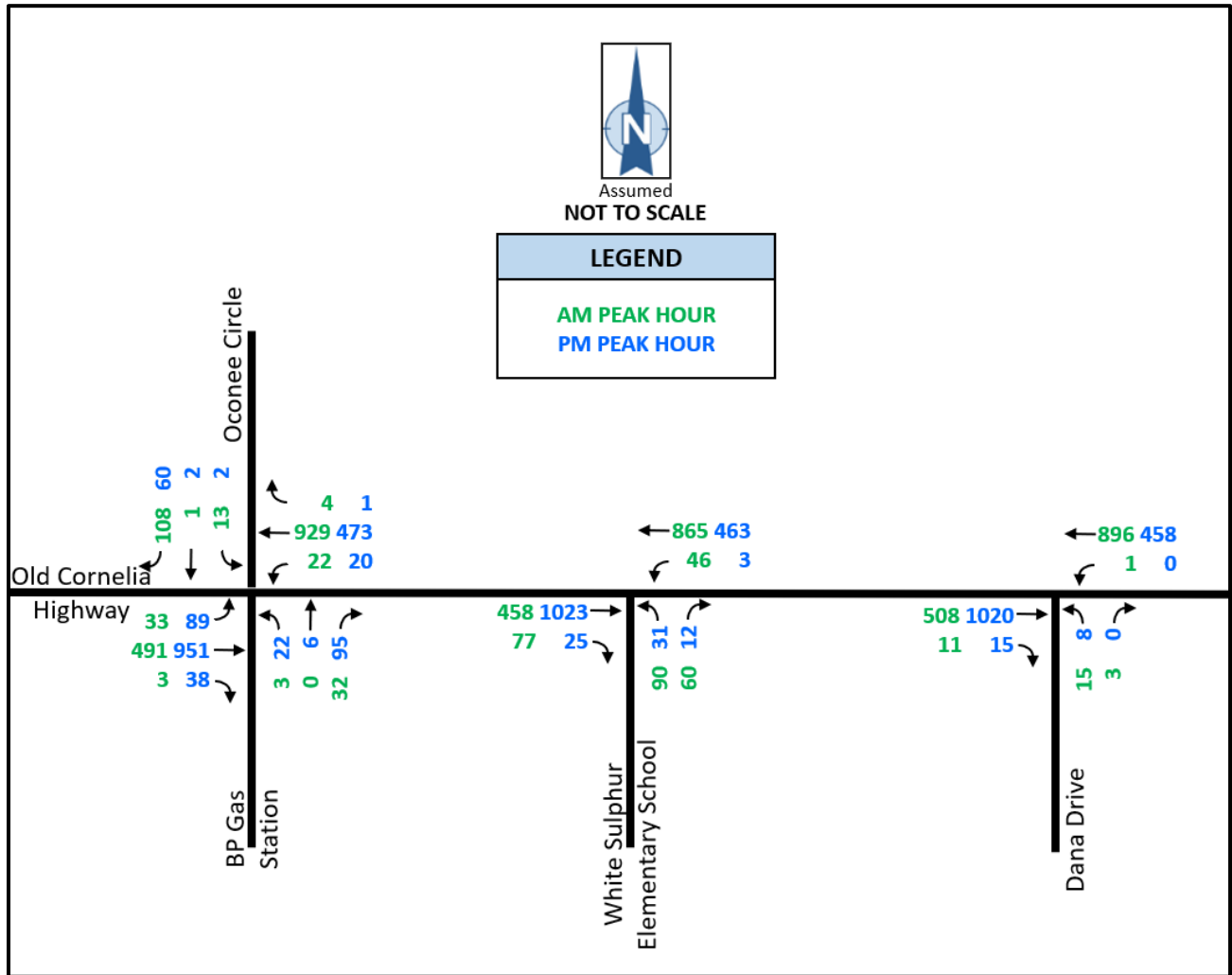




Figure 12: NO-BUILD VOLUMES, 2030

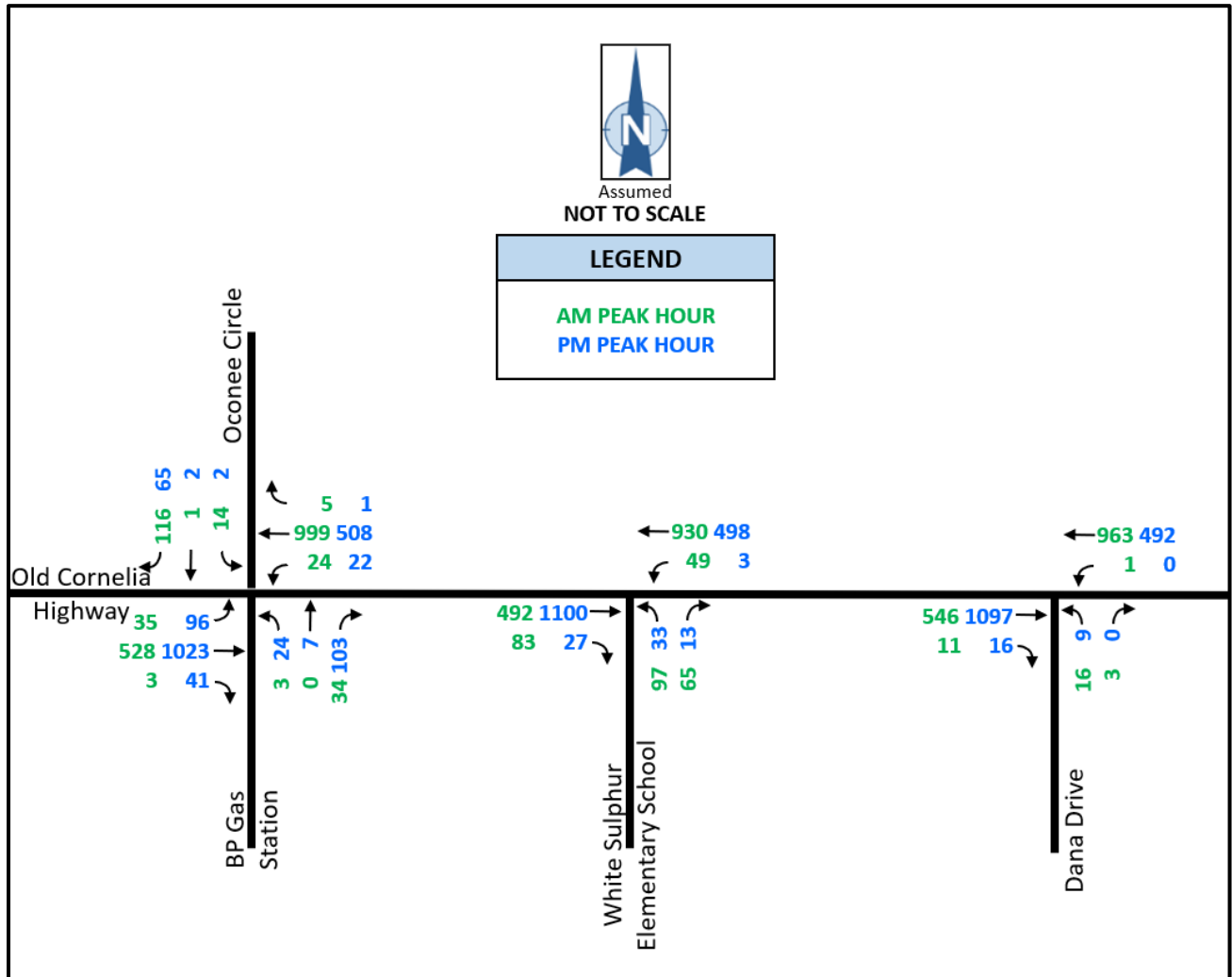
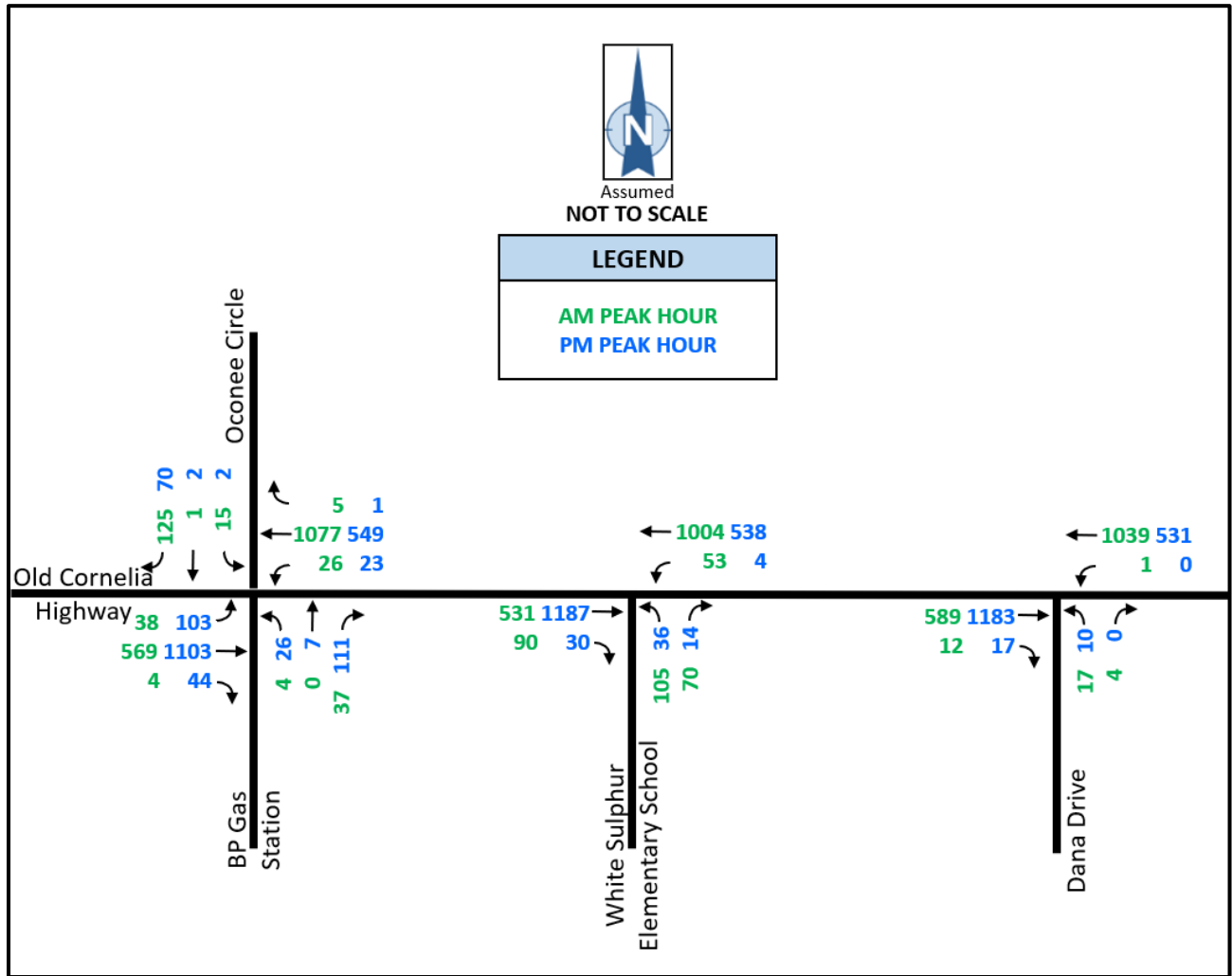


Figure 13: NO-BUILD VOLUMES, 2035





# PROJECTED CONDITIONS

## TRIP GENERATION

The trips generated by the development were estimated using trip generation rates found in ITE's publication *Trip Generation*, 10<sup>th</sup> Edition. *TripGen 10* software from Trafficware was used to facilitate the calculation. The trip generation publication contains multiple associated trip rates for the listed land uses. The rate that resulted in the larger trip generation was used for this study.

The development is scheduled to be constructed at a rate of 160 homes per year, and was evaluated in three phases: Phase 1 (2025), Phase 2 (2030), and Phase 3 (2035). Each phase of the trip generation is cumulative and includes the previous phase.

The weekday AM and PM Peak Hour trip generation estimates correspond to the peak hour of the adjacent street. It was assumed that 50% of the trips generated by the baseball park would be internal capture trips, generated by the residential land uses. Tables 10 through 12 summarizes the trip generation results. The trip generation data is provided in Appendix H.

**Table 10: TRIP GENERATION, PHASE 1 (2025)**

| ITE CODE                         | LAND USE                       | SIZE     | DAILY TRIPS | AM PEAK HOUR |      |       | PM PEAK HOUR |      |       |
|----------------------------------|--------------------------------|----------|-------------|--------------|------|-------|--------------|------|-------|
|                                  |                                |          |             | ENTER        | EXIT | TOTAL | ENTER        | EXIT | TOTAL |
| 210                              | Single Family Detached Housing | 190 DU   | 1,877       | 35           | 106  | 141   | 118          | 70   | 188   |
| 210                              | Single Family Detached Housing | 436 DU   | 4,116       | 81           | 242  | 323   | 272          | 160  | 432   |
| 221                              | Multifamily Housing (Mid-Rise) | 174 DU   | 947         | 16           | 47   | 63    | 47           | 30   | 77    |
| 411                              | Public Park                    | 20 acres | 101         | 0            | 0    | 0     | 13           | 11   | 24    |
| UNADJUSTED VOLUME                |                                |          | 7,041       | 132          | 395  | 527   | 450          | 271  | 721   |
| INTERNAL CAPTURE TRIPS           |                                |          | -50         | -0           | -0   | -0    | -6           | -6   | -12   |
| VOLUME ADDED TO ADJACENT STREETS |                                |          | 6,991       | 132          | 395  | 527   | 444          | 265  | 709   |

**Table 11: TRIP GENERATION, PHASE 2 (2030)**

| ITE CODE                         | LAND USE                       | SIZE     | DAILY TRIPS | AM PEAK HOUR |      |       | PM PEAK HOUR |      |       |
|----------------------------------|--------------------------------|----------|-------------|--------------|------|-------|--------------|------|-------|
|                                  |                                |          |             | ENTER        | EXIT | TOTAL | ENTER        | EXIT | TOTAL |
| 210                              | Single Family Detached Housing | 190 DU   | 1,877       | 35           | 106  | 141   | 118          | 70   | 188   |
| 210                              | Single Family Detached Housing | 486 DU   | 4,588       | 90           | 270  | 360   | 303          | 178  | 481   |
| 221                              | Multifamily Housing (Mid-Rise) | 924 DU   | 5,034       | 87           | 246  | 333   | 248          | 159  | 407   |
| 411                              | Public Park                    | 20 acres | 101         | 0            | 0    | 0     | 13           | 11   | 24    |
| UNADJUSTED VOLUME                |                                |          | 11,600      | 212          | 622  | 834   | 682          | 418  | 1,100 |
| INTERNAL CAPTURE TRIPS           |                                |          | -50         | -0           | -0   | -0    | -6           | -6   | -12   |
| VOLUME ADDED TO ADJACENT STREETS |                                |          | 11,550      | 212          | 622  | 834   | 676          | 412  | 1,088 |

**Table 12: TRIP GENERATION, PHASE 3 (2035)**

| ITE CODE                                | LAND USE                       | SIZE     | DAILY TRIPS | AM PEAK HOUR |       |       | PM PEAK HOUR |      |       |
|-----------------------------------------|--------------------------------|----------|-------------|--------------|-------|-------|--------------|------|-------|
|                                         |                                |          |             | ENTER        | EXIT  | TOTAL | ENTER        | EXIT | TOTAL |
| 210                                     | Single Family Detached Housing | 190 DU   | 1,877       | 35           | 106   | 141   | 118          | 70   | 188   |
| 210                                     | Single Family Detached Housing | 1,226 DU | 11,573      | 227          | 680   | 907   | 765          | 449  | 1,214 |
| 221                                     | Multifamily Housing (Mid-Rise) | 924 DU   | 5,034       | 87           | 246   | 333   | 248          | 159  | 407   |
| 411                                     | Public Park                    | 20 acres | 101         | 0            | 0     | 0     | 13           | 11   | 24    |
| <b>UNADJUSTED VOLUME</b>                |                                |          | 18,585      | 349          | 1,032 | 1,381 | 1,144        | 689  | 1,833 |
| <b>INTERNAL CAPTURE TRIPS</b>           |                                |          | -50         | -0           | -0    | -0    | -6           | -6   | -12   |
| <b>VOLUME ADDED TO ADJACENT STREETS</b> |                                |          | 18,535      | 349          | 1,032 | 1,381 | 1,138        | 683  | 1,821 |

The development is proposed to have a main driveway on Old Cornelia Highway between White Sulphur Elementary School and Dana Drive, with additional driveways added to the development in 2030 and 2035, respectively. The following assumptions were made for each build phase:

- **Phase 1 (2025)** - 100% of the trips would use the main driveway.
- **Phase 2 (2030)** – 80% of the trips would use the main driveway, and the remaining trips would use the secondary access point on Old Cornelia Highway.
- **Phase 3 (2035)** – 60% of the trips would use the main driveway, and the remaining trips would use the other access points on Old Cornelia Highway and Floyd Road.

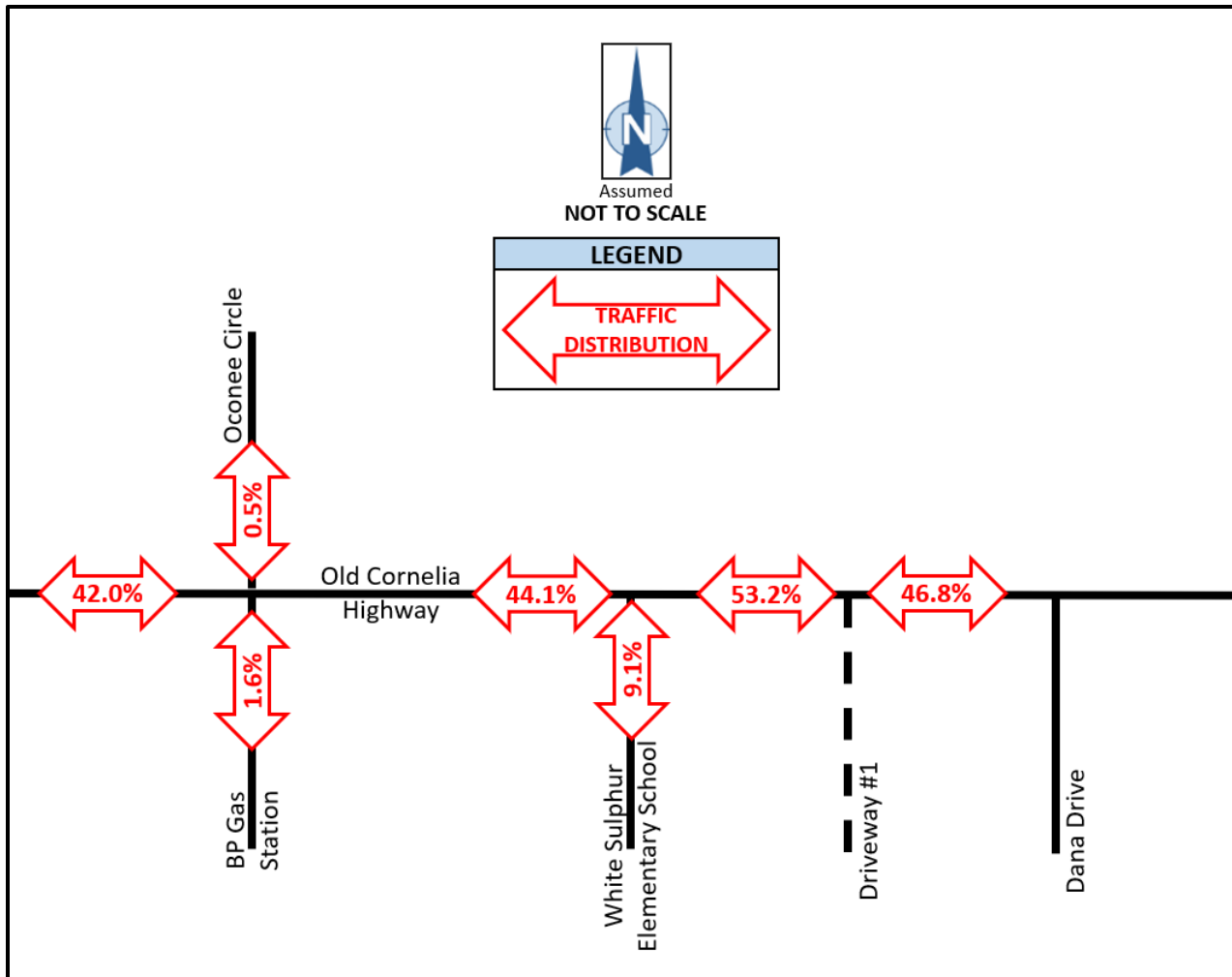


## TRIP DISTRIBUTION

In order to develop a distribution pattern for residential trips, the TMC data of the study area was analyzed and used to determine the percentage of traffic passing the proposed residential driveways for the new trips. The trip distribution percentages were based on the AM traffic pattern.

Figure 14 below shows the resulting trip distribution pattern that was used to assign the new generated traffic for the residential land uses.

**Figure 14: TRIP DISTRIBUTION PATTERN**



## TRAFFIC ASSIGNMENT

Tables 13 through 15 shows how the distributed trips are expected to enter and exit the development for each phase, according to the direction traveled.

**Table 13: NEW TRIPS ASSIGNMENT, PHASE 1 (2025)**

| To & From                       | %           | AM         |            | PM         |            |
|---------------------------------|-------------|------------|------------|------------|------------|
|                                 |             | IN         | OUT        | IN         | OUT        |
| Old Cornelia Highway West       | 42.0%       | 55         | 166        | 187        | 111        |
| BP Gas Station                  | 1.6%        | 2          | 6          | 7          | 4          |
| Oconee Circle                   | 0.5%        | 1          | 2          | 2          | 2          |
| White Sulphur Elementary School | 9.1%        | 12         | 36         | 40         | 24         |
| Old Cornelia Highway East       | 46.8%       | 62         | 185        | 208        | 124        |
| <b>Total Trips</b>              | <b>100%</b> | <b>132</b> | <b>395</b> | <b>444</b> | <b>265</b> |

**Table 14: NEW TRIPS ASSIGNMENT, PHASE 2 (2030)**

| To & From                       | %           | AM         |            | PM         |            |
|---------------------------------|-------------|------------|------------|------------|------------|
|                                 |             | IN         | OUT        | IN         | OUT        |
| Old Cornelia Highway West       | 42.0%       | 71         | 209        | 227        | 139        |
| BP Gas Station                  | 1.6%        | 3          | 8          | 9          | 5          |
| Oconee Circle                   | 0.5%        | 1          | 3          | 3          | 2          |
| White Sulphur Elementary School | 9.1%        | 15         | 45         | 49         | 30         |
| Old Cornelia Highway East       | 46.8%       | 80         | 233        | 253        | 154        |
| <b>Total Trips</b>              | <b>100%</b> | <b>170</b> | <b>498</b> | <b>541</b> | <b>330</b> |

**Table 15: NEW TRIPS ASSIGNMENT, PHASE 3 (2035)**

| To & From                       | %           | AM         |            | PM         |            |
|---------------------------------|-------------|------------|------------|------------|------------|
|                                 |             | IN         | OUT        | IN         | OUT        |
| Old Cornelia Highway West       | 42.0%       | 88         | 260        | 287        | 172        |
| BP Gas Station                  | 1.6%        | 3          | 10         | 11         | 7          |
| Oconee Circle                   | 0.5%        | 1          | 3          | 3          | 2          |
| White Sulphur Elementary School | 9.1%        | 19         | 56         | 62         | 37         |
| Old Cornelia Highway East       | 46.8%       | 98         | 290        | 320        | 192        |
| <b>Total Trips</b>              | <b>100%</b> | <b>209</b> | <b>619</b> | <b>683</b> | <b>410</b> |



## New Trips

The new trips generated by the development for each phase are shown in Figures 15 through 17 on the following pages. These trips are based on the assumptions from the traffic assignment.

**Figure 15: NEW TRIPS, PHASE 1 (2025)**

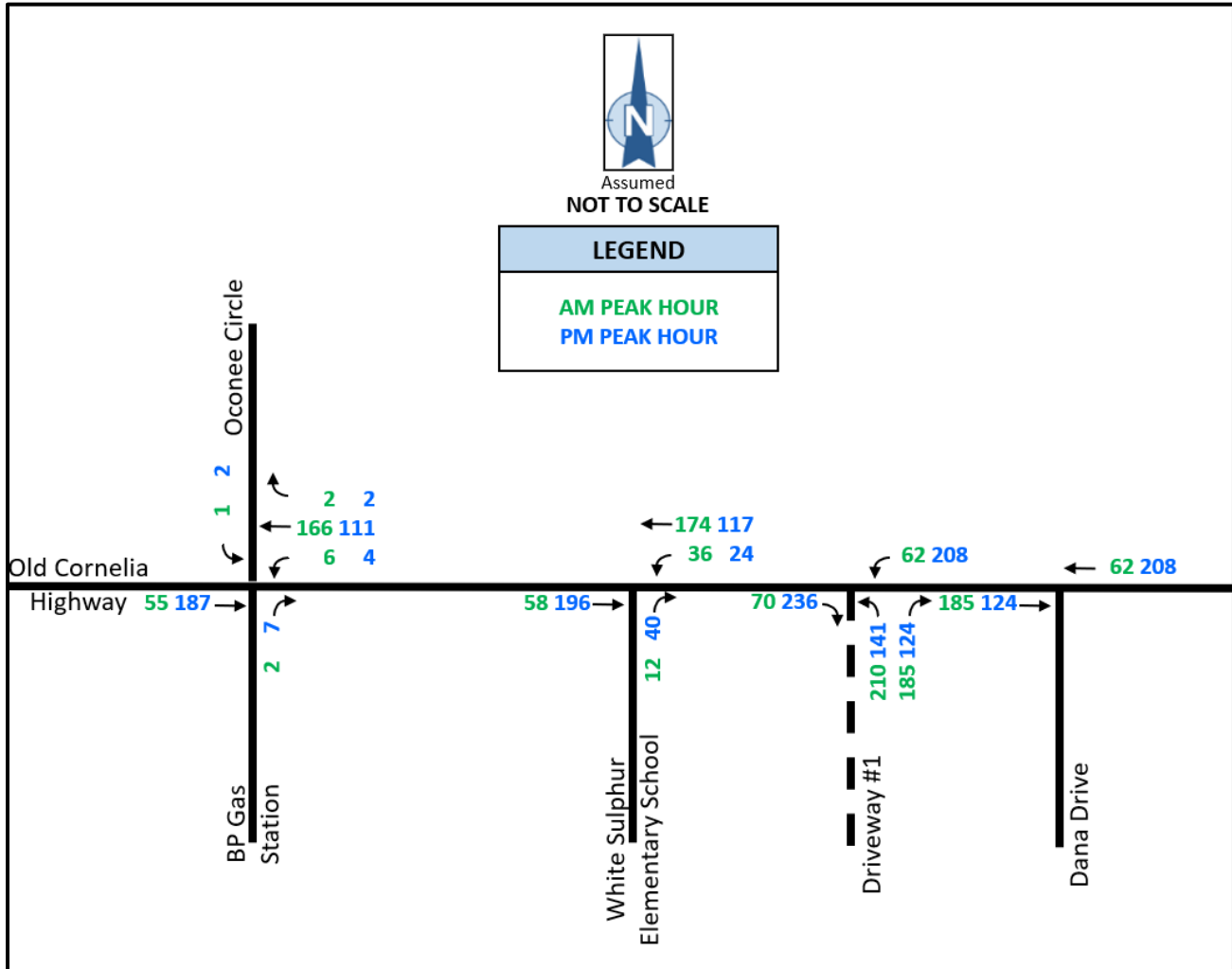


Figure 16: NEW TRIPS, PHASE 2 (2030)

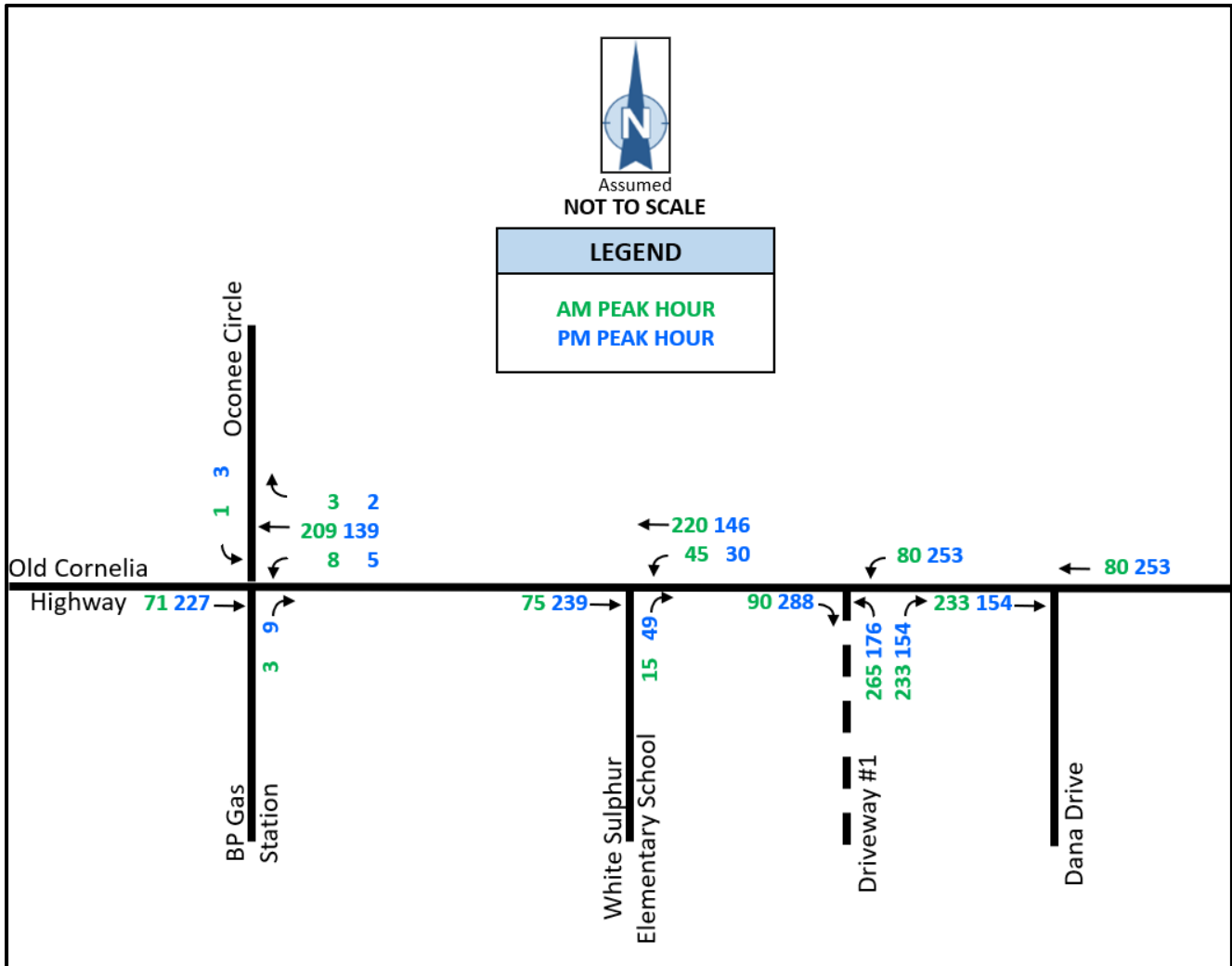
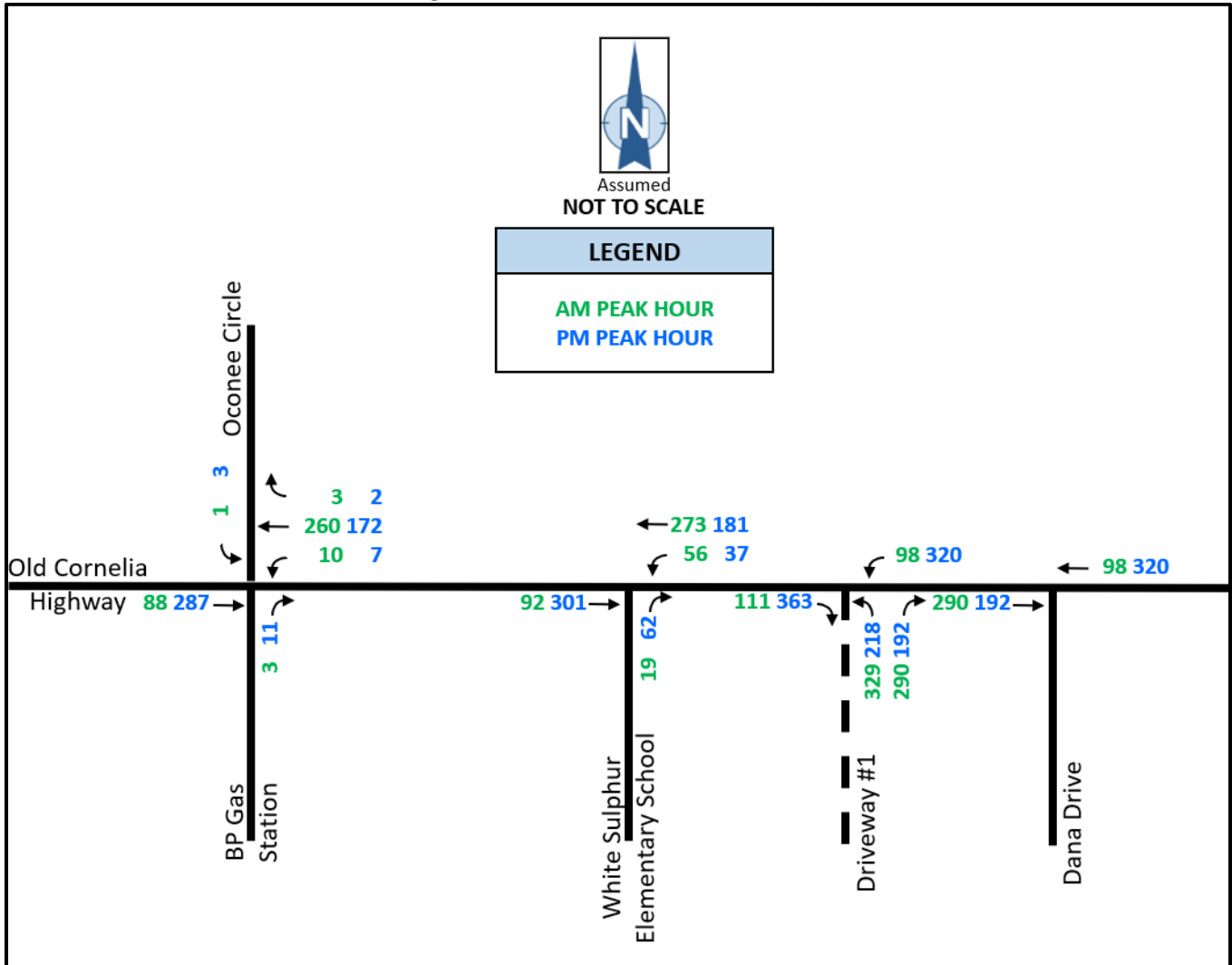




Figure 17: NEW TRIPS, PHASE 3 (2035)



## Total Peak Hour Traffic Volumes

The Total Peak Hour Traffic Volumes for each phase are derived by combining the New Trips (Figures 15 through 17) with the No-Build Volumes (Figures 11 through 13). The Projected 2025 Peak Hour Traffic Volumes are shown below in Figure 18, and the Projected 2030 and 2035 Peak Hour Traffic Volumes are shown on the following pages in Figure 19 and 20.

**Figure 18: TOTAL PEAK HOUR TRAFFIC VOLUMES, PHASE 1 (2025)**

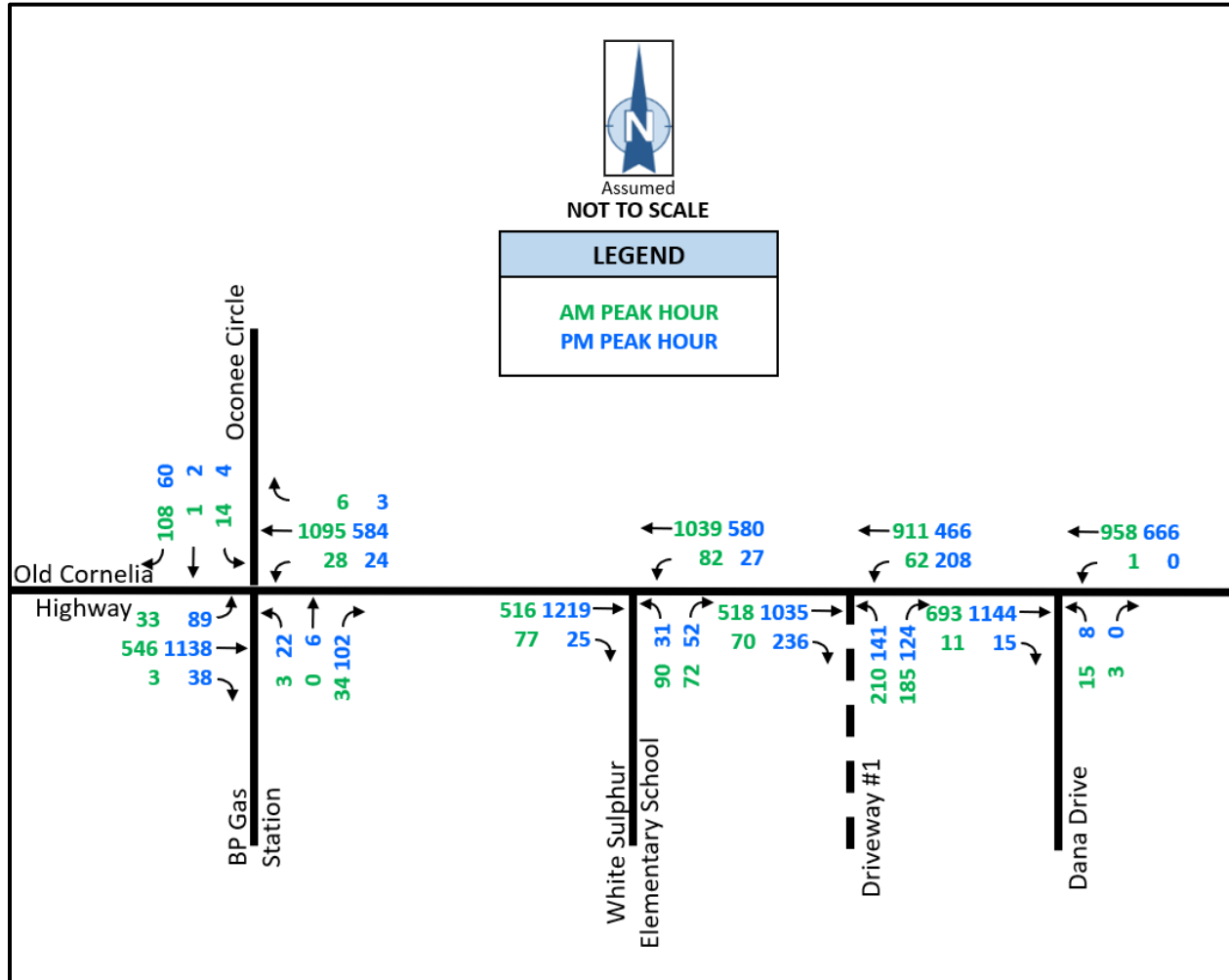




Figure 19: TOTAL PEAK HOUR TRAFFIC VOLUMES, PHASE 2 (2030)

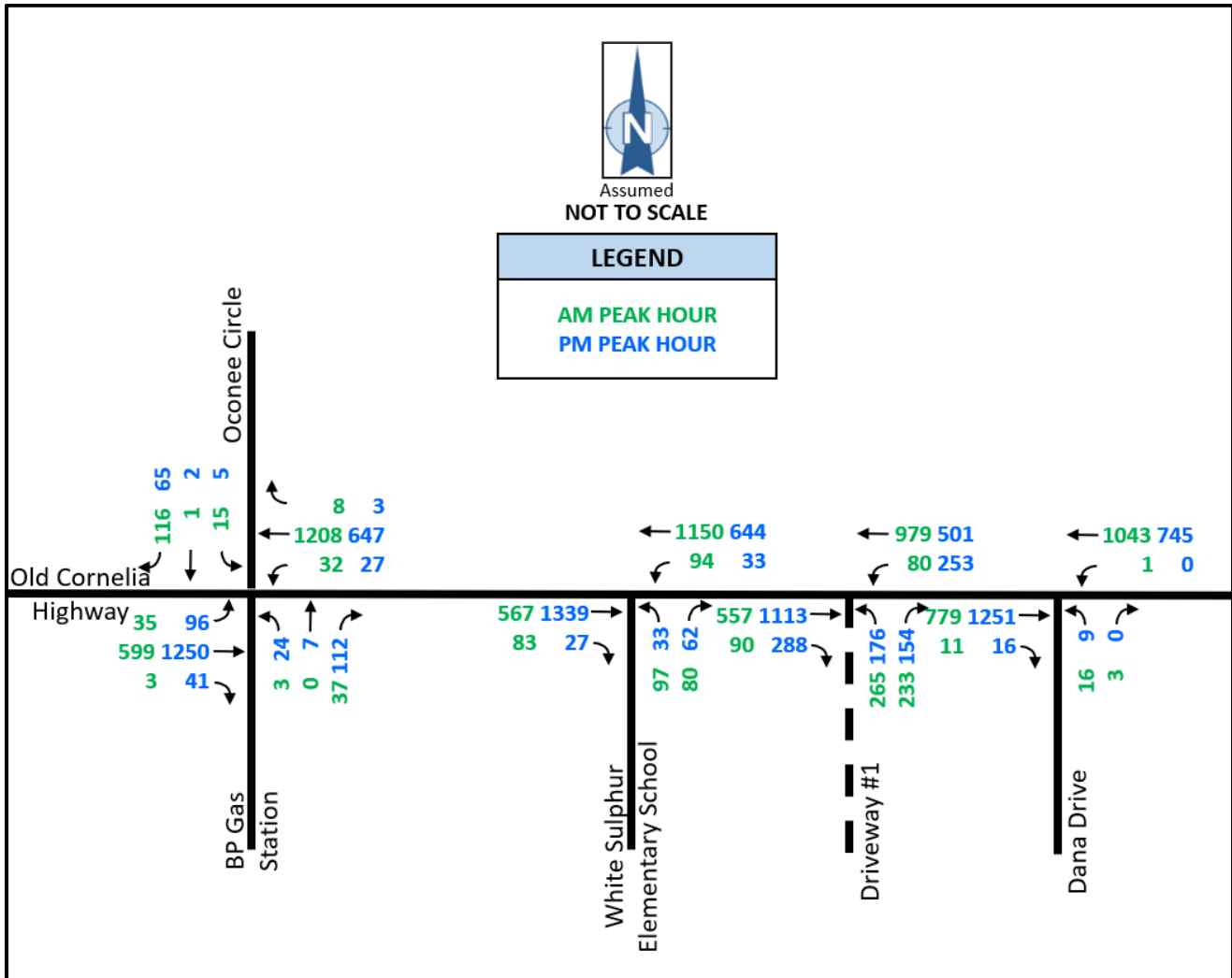
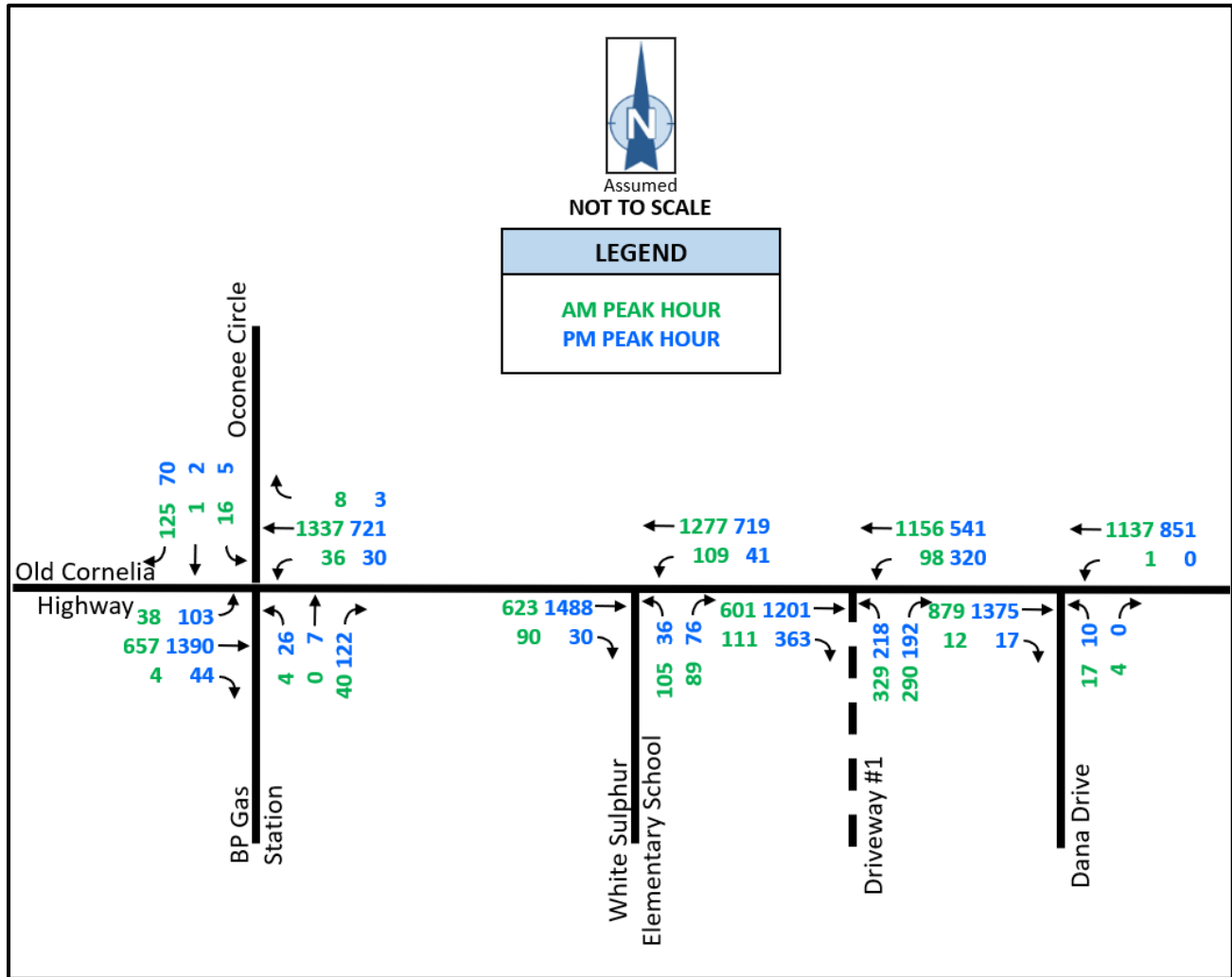


Figure 20: TOTAL PEAK HOUR TRAFFIC VOLUMES, PHASE 3 (2035)



## CAPACITY ANALYSIS

Existing and projected conditions were evaluated using capacity analysis techniques described in the *Highway Capacity Manual, Special Report 209*, published by the Transportation Research Board, 2016. *Synchro 10* from Trafficware was used to facilitate the analysis. HCM level-of-service (LOS) definitions are shown in Table 16. The target LOS at the study intersection is 'D' or better.

**Table 16: LEVEL OF SERVICE CRITERIA**

| LEVEL OF SERVICE | DELAY PER VEHICLE (SECONDS) |                            |
|------------------|-----------------------------|----------------------------|
|                  | SIGNALIZED INTERSECTIONS    | UNSIGNALIZED INTERSECTIONS |
| A                | ≤10.0                       | ≤10.0                      |
| B                | 10.1 to 20.0                | 10.1 to 15.0               |
| C                | 20.1 to 35.0                | 15.1 to 25.0               |
| D                | 35.1 to 55.0                | 25.1 to 35.0               |
| E                | 55.1 to 79.9                | 35.1 to 49.9               |
| F                | >80.0                       | >50.0                      |

Source: Highway Capacity Manual, Special Report 209, Transportation Research Board, 2016



## EXISTING CONDITIONS

The intersections included in the study were first evaluated using the existing geometry and volumes. The results of the capacity analysis for the intersections are summarized in Table 17. For each condition, the level of service is shown, followed parenthetically by the average delay per vehicle, in seconds. The capacity analysis reports for the intersections under existing conditions are provided in Appendix I.

**Table 17: CAPACITY ANALYSIS RESULTS - EXISTING CONDITIONS**

| INTERSECTION                                       | MOVEMENT | EXISTING YEAR (2021) |                 |
|----------------------------------------------------|----------|----------------------|-----------------|
|                                                    |          | AM PEAK HOUR         | PM PEAK HOUR    |
| Old Cornelia Hwy @ Dana Dr                         | EBT/R    | -                    | -               |
|                                                    | WBL/T    | A (8.4)              | -               |
|                                                    | NBL/R    | D (29.2)             | <b>E (38.6)</b> |
| Old Cornelia Hwy @ White Sulphur Elementary School | EBT      | -                    | -               |
|                                                    | EBR      | -                    | -               |
|                                                    | WBL      | A (8.9)              | B (10.5)        |
|                                                    | WBT      | -                    | -               |
|                                                    | NBL/R    | <b>F (161.5)</b>     | <b>E (38.2)</b> |
| Old Cornelia Hwy @ Oconee Cir                      | EBL      | B (10.3)             | A (8.8)         |
|                                                    | EBT      | -                    | -               |
|                                                    | EBR      | -                    | -               |
|                                                    | WBL      | A (8.6)              | B (10.7)        |
|                                                    | WBT/R    | -                    | -               |
|                                                    | NBL/T/R  | C (18.7)             | <b>F (95.1)</b> |
|                                                    | SBL/T/R  | D (32.5)             | C (15.9)        |

Capacity results indicate that the following intersections are experiencing unacceptable operation under existing conditions:

- Old Cornelia Highway and Dana Drive, which currently operates at LOS ‘E’ on the northbound approach in the PM Peak Hour.
- Old Cornelia Highway and White Sulphur Elementary School, which currently operates at LOS ‘E’ or worse on the northbound approach in both peak hours.
- Old Cornelia Highway and Oconee Circle, which currently operates at LOS ‘F’ on the northbound approach in the PM Peak Hour.

## PROJECTED NO-BUILD CONDITIONS

The projected No-Build conditions include the existing geometry and the background growth volumes without the new trips generated from the development. The capacity analysis results for each of the study intersections under projected No-Build conditions for each Phase (2025, 2030, and 2035) are provided in Table 18 below. The capacity analysis reports for the intersections under projected No-Build conditions can be found in Appendix J.

**Table 18: CAPACITY ANALYSIS RESULTS – NO-BUILD CONDITIONS**

| INTERSECTION                                       | MOVEMENT | PHASE 1 (2025)   |                  | PHASE 2 (2030)   |                  | PHASE 3 (2035)   |                  |
|----------------------------------------------------|----------|------------------|------------------|------------------|------------------|------------------|------------------|
|                                                    |          | AM PEAK HOUR     | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     |
| Old Cornelia Hwy @ Dana Dr                         | EBT/R    | -                | -                | -                | -                | -                | -                |
|                                                    | WBL/T    | A (8.5)          | -                | A (8.7)          | -                | A (8.8)          | -                |
|                                                    | NBL/R    | D (33.2)         | <b>E (44.1)</b>  | <b>E (39.4)</b>  | <b>F (52.9)</b>  | <b>E (47.1)</b>  | <b>F (66.9)</b>  |
| Old Cornelia Hwy @ White Sulphur Elementary School | EBT      | -                | -                | -                | -                | -                | -                |
|                                                    | EBR      | -                | -                | -                | -                | -                | -                |
|                                                    | WBL      | A (9.1)          | B (10.8)         | A (9.3)          | B (11.3)         | A (9.5)          | B (11.9)         |
|                                                    | WBT      | -                | -                | -                | -                | -                | -                |
|                                                    | NBL/R    | <b>F (251.4)</b> | <b>E (45.2)</b>  | <b>F (420.4)</b> | <b>F (58.5)</b>  | <b>F (688.1)</b> | <b>F (86.1)</b>  |
| Old Cornelia Hwy @ Ocone Cir                       | EBL      | B (10.6)         | A (8.9)          | B (11.1)         | A (9.1)          | B (11.6)         | A (9.3)          |
|                                                    | EBT      | -                | -                | -                | -                | -                | -                |
|                                                    | EBR      | -                | -                | -                | -                | -                | -                |
|                                                    | WBL      | A (8.7)          | B (11.0)         | A (8.8)          | B (11.5)         | A (9.0)          | B (12.1)         |
|                                                    | WBT/R    | -                | -                | -                | -                | -                | -                |
|                                                    | NBL/T/R  | C (21.7)         | <b>F (157.9)</b> | D (27.5)         | <b>F (334.3)</b> | <b>F (56.9)</b>  | <b>F (619.0)</b> |
|                                                    | SBL/T/R  | <b>E (40.6)</b>  | C (17.0)         | <b>F (57.9)</b>  | C (18.8)         | <b>F (96.0)</b>  | C (21.6)         |

Capacity results indicate that the following intersections are projected to experience unacceptable operation under No-Build conditions:

- Phase 1 (2025):
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'E' on the northbound approach in the PM Peak Hour.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'E' on the northbound approach in the PM Peak Hour and LOS 'F' in the AM Peak Hour.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'E' on the southbound approach in the AM Peak Hour and at LOS 'F' on the northbound approach in the PM Peak Hour.
- Phase 2 (2030):
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'E' on the northbound approach in the AM Peak Hour and LOS 'F' in the PM Peak Hour.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'F' on the northbound approach in both peak hours.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'F' on the southbound approach in the AM Peak Hour and at LOS 'F' on the northbound approach in the PM Peak Hour.
- Phase 3 (2035):
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'E' on the northbound approach in the AM Peak Hour and LOS 'F' in the PM Peak Hour.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'F' on the northbound approach in both peak hours.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'F' on the southbound approach in the AM Peak Hour and at LOS 'F' on the northbound approach in both peak hours.



## PROJECTED BUILD CONDITIONS

The projected Build conditions include the existing geometry and the Total Peak Hour Traffic Volumes, which includes the background growth and new trips generated by the development. The capacity analysis results for each of the study intersections under projected Build conditions are provided in Table 19. The capacity analysis reports for the intersections under projected Build conditions can be found in Appendix K.

**Table 19: CAPACITY ANALYSIS RESULTS – BUILD CONDITIONS**

| INTERSECTION                                       | MOVEMENT | PHASE 1 (2025)   |                  | PHASE 2 (2030)   |                  | PHASE 3 (2035)   |                  |
|----------------------------------------------------|----------|------------------|------------------|------------------|------------------|------------------|------------------|
|                                                    |          | AM PEAK HOUR     | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     |
| Old Cornelia Hwy @ Dana Dr                         | EBT/R    | -                | -                | -                | -                | -                | -                |
|                                                    | WBL/T    | A (9.2)          | -                | A (9.6)          | -                | B (10.0)         | -                |
|                                                    | NBL/R    | <b>E (48.5)</b>  | <b>F (76.6)</b>  | <b>F (67.0)</b>  | <b>F (109.4)</b> | <b>F (100.3)</b> | <b>F (183.5)</b> |
| Old Cornelia Hwy @ White Sulphur Elementary School | EBT      | -                | -                | -                | -                | -                | -                |
|                                                    | EBR      | -                | -                | -                | -                | -                | -                |
|                                                    | WBL      | A (9.6)          | B (12.4)         | B (10.0)         | B (13.5)         | B (10.6)         | C (15.2)         |
|                                                    | WBT      | -                | -                | -                | -                | -                | -                |
|                                                    | NBL/R    | <b>F (711.0)</b> | <b>F (121.7)</b> | <b>F (*)</b>     | <b>F (261.8)</b> | <b>F (*)</b>     | <b>F (609.3)</b> |
| Old Cornelia Hwy @ Ocone Cir                       | EBL      | B (11.7)         | A (9.4)          | B (12.5)         | A (9.8)          | B (13.7)         | B (10.2)         |
|                                                    | EBT      | -                | -                | -                | -                | -                | -                |
|                                                    | EBR      | -                | -                | -                | -                | -                | -                |
|                                                    | WBL      | A (8.9)          | B (12.4)         | A (9.2)          | B (13.4)         | A (9.4)          | B (14.9)         |
|                                                    | WBT/R    | -                | -                | -                | -                | -                | -                |
|                                                    | NBL/T/R  | <b>E (35.9)</b>  | <b>F (532.3)</b> | <b>F (75.0)</b>  | <b>F (*)</b>     | <b>F (993.8)</b> | <b>F (*)</b>     |
|                                                    | SBL/T/R  | <b>F (82.5)</b>  | D (27.6)         | <b>F (163.8)</b> | <b>E (46.1)</b>  | <b>F (335.5)</b> | <b>F (113.4)</b> |
| Old Cornelia Hwy @ Driveway #1                     | EBT/R    | -                | -                | -                | -                | -                | -                |
|                                                    | WBL/T    | A (9.1)          | C (18.2)         | A (9.5)          | D (26.1)         | A (9.9)          | <b>F (64.3)</b>  |
|                                                    | NBL/R    | <b>F (*)</b>     | <b>F (*)</b>     | <b>F (*)</b>     | <b>F (*)</b>     | <b>F (*)</b>     | <b>F (*)</b>     |

Capacity results indicate that the following intersections are projected to experience unacceptable operation under Build conditions:

- Phase 1 (2025):
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'E' on the northbound approach in the AM Peak Hour and LOS 'F' in the PM Peak Hour.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'F' on the northbound approach in both peak hours.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'F' on the southbound approach in the AM Peak Hour and at LOS 'E' or worse on the northbound approach in both peak hours.
  - Old Cornelia Highway and Driveway #1, which is projected to operate at LOS 'F' on the northbound approach in both peak hours.
- Phase 2 (2030):
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'F' on the northbound approach in both peak hours.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'F' on the northbound approach in both peak hours.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'E' or worse on the southbound approach in both peak hours and at LOS 'F' on the northbound approach in both peak hours.
  - Old Cornelia Highway and Driveway #1, which is projected to operate at LOS 'F' on the northbound approach in both peak hours.
- Phase 3 (2035):
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'F' on the northbound approach in both peak hours.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'F' on the northbound approach in both peak hours.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'F' on the southbound approach in both peak hours and at LOS 'F' on the northbound approach in both peak hours.
  - Old Cornelia Highway and Driveway #1, which is projected to operate at LOS 'F' on the northbound approach in both peak hours and at LOS 'F' on the westbound approach in the PM Peak Hour.

## PROJECTED CONDITIONS WITH WIDENING

A long range widening project on Old Cornelia Highway is scheduled to begin construction after the completion of Phase 3 (2035) of the development. In order to evaluate potential improvements to the study area, the No-Build and Build condition volumes were evaluated for all three phases with Old Cornelia Highway widened to four lanes.

The capacity analysis results for each of the study intersections under projected No-Build conditions with widening on Old Cornelia Road are provided in Table 20. The capacity analysis reports for the intersections under projected No-Build and Build conditions with the widening project can be found in Appendix L.

**Table 20: CAPACITY ANALYSIS RESULTS – NO-BUILD CONDITIONS WITH WIDENING**

| INTERSECTION                                       | MOVEMENT | PHASE 1 (2025)  |                 | PHASE 2 (2030)  |                  | PHASE 3 (2035)   |                  |
|----------------------------------------------------|----------|-----------------|-----------------|-----------------|------------------|------------------|------------------|
|                                                    |          | AM PEAK HOUR    | PM PEAK HOUR    | AM PEAK HOUR    | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     |
| Old Cornelia Hwy @ Dana Dr                         | EBT      | -               | -               | -               | -                | -                | -                |
|                                                    | EBT/R    | -               | -               | -               | -                | -                | -                |
|                                                    | WBL/T    | A (8.5)         | -               | A (8.7)         | -                | A (8.8)          | -                |
|                                                    | WBT      | -               | -               | -               | -                | -                | -                |
|                                                    | NBL/R    | C (20.4)        | <b>E (38.0)</b> | C (22.5)        | <b>E (45.0)</b>  | D (25.0)         | <b>F (55.0)</b>  |
| Old Cornelia Hwy @ White Sulphur Elementary School | EBT      | -               | -               | -               | -                | -                | -                |
|                                                    | EBR      | -               | -               | -               | -                | -                | -                |
|                                                    | WBL      | A (9.1)         | B (10.8)        | A (9.3)         | B (11.3)         | A (9.6)          | B (11.9)         |
|                                                    | WBT      | -               | -               | -               | -                | -                | -                |
|                                                    | NBL/R    | <b>F (58.4)</b> | D (33.3)        | <b>F (99.2)</b> | <b>E (40.6)</b>  | <b>F (181.3)</b> | <b>F (53.7)</b>  |
| Old Cornelia Hwy @ Oconee Cir                      | EBL      | B (10.6)        | A (8.9)         | B (11.1)        | A (9.1)          | B (11.6)         | A (9.3)          |
|                                                    | EBT      | -               | -               | -               | -                | -                | -                |
|                                                    | EBR      | -               | -               | -               | -                | -                | -                |
|                                                    | WBL      | A (8.7)         | B (11.0)        | A (8.9)         | B (11.5)         | A (9.0)          | B (12.1)         |
|                                                    | WBT      | -               | -               | -               | -                | -                | -                |
|                                                    | WBT/R    | -               | -               | -               | -                | -                | -                |
|                                                    | NBL/T/R  | B (13.1)        | <b>F (75.7)</b> | B (13.9)        | <b>F (153.7)</b> | C (16.4)         | <b>F (297.3)</b> |
|                                                    | SBL/T/R  | C (23.7)        | B (14.8)        | D (29.6)        | C (16.2)         | <b>E (40.8)</b>  | C (18.3)         |



Capacity results indicate that the following intersections are projected to experience unacceptable operation under No-Build conditions with widening on Old Cornelia Highway:

- Phase 1 (2025):
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'E' on the northbound approach in the PM Peak Hour.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'F' on the northbound approach in the AM Peak Hour.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'F' on the northbound approach in the PM Peak Hour.
- Phase 2 (2030):
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'E' in the PM Peak Hour.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'E' or worse on the northbound approach in both peak hours.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'F' on the northbound approach in the PM Peak Hour.
- Phase 3 (2035):
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'F' on the northbound approach in the PM Peak Hour.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'F' on the northbound approach in both peak hours.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'E' on the southbound approach in the AM Peak Hour and at LOS 'F' on the northbound approach in the PM Peak Hour.

The capacity analysis results for each of the study intersections under projected Build conditions with widening on Old Cornelia Road are provided in Table 21.

**Table 21: CAPACITY ANALYSIS RESULTS – BUILD CONDITIONS WITH WIDENING**

| INTERSECTION                                       | MOVEMENT | PHASE 1 (2025)   |                  | PHASE 2 (2030)   |                  | PHASE 3 (2035)   |                  |
|----------------------------------------------------|----------|------------------|------------------|------------------|------------------|------------------|------------------|
|                                                    |          | AM PEAK HOUR     | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     |
| Old Cornelia Hwy @ Dana Dr                         | EBT      | -                | -                | -                | -                | -                | -                |
|                                                    | EBT/R    | -                | -                | -                | -                | -                | -                |
|                                                    | WBL/T    | A (9.2)          | -                | A (9.6)          | -                | B (10.0)         | -                |
|                                                    | WBT      | -                | -                | -                | -                | -                | -                |
|                                                    | NBL/R    | D (27.3)         | <b>F (56.3)</b>  | D (33.7)         | <b>F (75.3)</b>  | <b>E (42.3)</b>  | <b>F (112.5)</b> |
| Old Cornelia Hwy @ White Sulphur Elementary School | EBT      | -                | -                | -                | -                | -                | -                |
|                                                    | EBR      | -                | -                | -                | -                | -                | -                |
|                                                    | WBL      | A (9.6)          | B (12.4)         | B (10.1)         | B (13.5)         | B (10.6)         | C (15.2)         |
|                                                    | WBT      | -                | -                | -                | -                | -                | -                |
|                                                    | NBL/R    | <b>F (189.3)</b> | <b>F (52.6)</b>  | <b>F (385.7)</b> | <b>F (92.8)</b>  | <b>F (746.5)</b> | <b>F (233.4)</b> |
| Old Cornelia Hwy @ Oconee Cir                      | EBL      | B (11.7)         | A (9.4)          | B (12.5)         | A (9.8)          | B (13.7)         | B (10.3)         |
|                                                    | EBT      | -                | -                | -                | -                | -                | -                |
|                                                    | EBR      | -                | -                | -                | -                | -                | -                |
|                                                    | WBL      | A (8.9)          | B (12.4)         | A (9.2)          | B (13.4)         | A (9.5)          | B (14.9)         |
|                                                    | WBT      | -                | -                | -                | -                | -                | -                |
|                                                    | WBT/R    | -                | -                | -                | -                | -                | -                |
|                                                    | NBL/T/R  | B (14.6)         | <b>F (240.3)</b> | C (16.4)         | <b>F (531.3)</b> | C (22.6)         | <b>F (*)</b>     |
|                                                    | SBL/T/R  | <b>E (37.6)</b>  | C (24.2)         | <b>F (62.9)</b>  | <b>E (40.3)</b>  | <b>F (142.8)</b> | <b>F (100.8)</b> |
| Old Cornelia Hwy @ Driveway #1                     | EBT      | -                | -                | -                | -                | -                | -                |
|                                                    | EBT/R    | -                | -                | -                | -                | -                | -                |
|                                                    | WBL/T    | A (9.1)          | C (18.4)         | A (9.5)          | D (26.6)         | A (9.9)          | <b>F (66.2)</b>  |
|                                                    | WBT      | -                | -                | -                | -                | -                | C (15.2)         |
|                                                    | NBL/R    | <b>F (453.2)</b> | <b>F (*)</b>     | <b>F (997.0)</b> | <b>F (*)</b>     | <b>F (*)</b>     | <b>F (*)</b>     |

Capacity results indicate that the following intersections are projected to experience unacceptable operation under Build conditions with widening on Old Cornelia Highway:

- Phase 1 (2025):
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'F' on the northbound approach in the PM Peak Hour.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'F' on the northbound approach in both peak hours.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'E' on the southbound approach in the AM Peak Hour and at LOS 'F' on the northbound approach in the PM Peak Hour.
  - Old Cornelia Highway and Driveway #1, which is projected to operate at LOS 'F' on the northbound approach in both peak hours.
- Phase 2 (2030):
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'F' on the northbound approach in the PM Peak Hour.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'F' on the northbound approach in both peak hours.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'E' or worse on the southbound approach in both peak hours and at LOS 'F' on the northbound approach in the PM Peak Hour.
  - Old Cornelia Highway and Driveway #1, which is projected to operate at LOS 'F' on the northbound approach in both peak hours.
- Phase 3 (2035):
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'E' or worse on the northbound approach in both peak hours.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'F' on the northbound approach in both peak hours.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'F' on the southbound approach in both peak hours and at LOS 'F' on the northbound approach in the PM Peak Hour.
  - Old Cornelia Highway and Driveway #1, which is projected to operate at LOS 'F' on the northbound approach in both peak hours and at LOS 'F' on the westbound approach in the PM Peak Hour.



## DRIVEWAY #1 IMPROVEMENTS

The intersection of Old Cornelia Highway and Driveway #1 was evaluated for alternative traffic control. Due to the close proximity to the intersections with White Sulphur Elementary School and Dana Drive, these improvements were evaluated with those intersections to observe how they operate. The following improvements were evaluated at Old Cornelia Highway and Driveway #1:

- Minor Street Stop Control, with added turn lanes
- Traffic Signal
- Multilane Roundabout

Additionally, each alternative was evaluated under two scenarios: with the existing geometry and with four lane widening on Old Cornelia Highway.

In order to determine if a signal would be warranted at the intersection, the 8<sup>th</sup> highest hour volume was estimated and compared to the volume thresholds of Warrants #1 and #2, which are established in the *MUTCD* handbook. The daily volume was estimated from the highest peak hour volume and the K-factor, which was found from the ATR data to be 9.4% on SR 81. The 8<sup>th</sup> highest hour, which is estimated to be 5.6% of the daily traffic in accordance with the GDOT Design Manual, was then calculated from the daily volume through the intersection.

Further analysis was conducted to check each of the intersections against Warrant 2 – Four Hour Vehicular Volume. The 4<sup>th</sup> highest hour was calculated to be 7.8% from the K-factor and the 8<sup>th</sup> highest hour.

The warrant analysis was conducted in two ways: the conventional method, using the side street Volumes.

Table 22 and 23 on the following page summarizes the results of the signal warrants with the conventional method, using the 70% thresholds for the study intersection. Signal Warrants were evaluated using 2025, 2030, and 2035 Build volumes, the 8<sup>th</sup> highest hour method, and the 4<sup>th</sup> highest hour.

$$\text{Estimated Daily Volume} = \frac{\text{Highest Peak Hour Volume}}{K - \text{factor}}$$

**2025:**  $\text{Estimated Daily Volume}_{\text{Major Street, 2025}} = \frac{1491}{.094} \approx 15862$   
 $\text{Estimated Daily Volume}_{\text{Minor Street, 2025}} = \frac{210}{.094} \approx 2234$

**2030:**  $\text{Estimated Daily Volume}_{\text{Major Street, 2030}} = \frac{1616}{.094} \approx 17191$   
 $\text{Estimated Daily Volume}_{\text{Minor Street, 2030}} = \frac{265}{.094} \approx 2819$

**2035:**  $\text{Estimated Daily Volume}_{\text{Major Street, 2035}} = \frac{1756}{.094} \approx 18680$   
 $\text{Estimated Daily Volume}_{\text{Minor Street, 2035}} = \frac{329}{.094} \approx 3500$

$$8\text{th Highest Hour Volume} = \frac{\text{Highest Peak Hour Volume}}{K - \text{factor}} * .056$$

**2025:**  $8\text{th Highest Hour Volume}_{\text{Major Street, 2025}} = \frac{1491}{.094} * .056 \approx 888$   
 $8\text{th Highest Hour Volume}_{\text{Minor Street, 2025}} = \frac{210}{.094} * .056 \approx 125$

**2030:**  $8\text{th Highest Hour Volume}_{\text{Major Street, 2030}} = \frac{1616}{.094} * .056 \approx 963$   
 $8\text{th Highest Hour Volume}_{\text{Minor Street, 2030}} = \frac{265}{.094} * .056 \approx 158$

**2035:**  $8\text{th Highest Hour Volume}_{\text{Major Street, 2035}} = \frac{1756}{.094} * .056 \approx 1046$   
 $8\text{th Highest Hour Volume}_{\text{Minor Street, 2035}} = \frac{329}{.094} * .056 \approx 196$

$$\frac{4\text{th Highest Hour Volume}}{K - \text{factor}} = \frac{\text{Highest Peak Hour Volume}}{K - \text{factor}} * (.056 + (K \text{ factor} - .056) \left(\frac{4}{7}\right))$$

**2025:**  $4\text{th Highest Hour Volume}_{\text{Major Street, 2025}} = \frac{1491}{.094} * (.056 + (.038) \left(\frac{4}{7}\right)) \approx 1233$   
 $4\text{th Highest Hour Volume}_{\text{Minor Street, 2025}} = \frac{210}{.094} * (.056 + (.038) \left(\frac{4}{7}\right)) \approx 174$   
**2030:**  $4\text{th Highest Hour Volume}_{\text{Major Street, 2030}} = \frac{1616}{.094} * (.056 + (.038) \left(\frac{4}{7}\right)) \approx 1336$   
 $4\text{th Highest Hour Volume}_{\text{Minor Street, 2030}} = \frac{265}{.094} * (.056 + (.038) \left(\frac{4}{7}\right)) \approx 219$   
**2035:**  $4\text{th Highest Hour Volume}_{\text{Major Street, 2035}} = \frac{1756}{.094} * (.056 + (.038) \left(\frac{4}{7}\right)) \approx 1452$   
 $4\text{th Highest Hour Volume}_{\text{Minor Street, 2035}} = \frac{329}{.094} * (.056 + (.038) \left(\frac{4}{7}\right)) \approx 272$

**Table 22: TRAFFIC SIGNAL WARRANTS (CONVENTIONAL METHOD), EXISTING GEOMETRY**

| YEAR | HIGHEST PEAK HOUR VOLUMES (MAJOR/MINOR) | ESTIMATED DAILY VOLUME | 8 <sup>th</sup> HIGHEST PEAK HOUR (Warrant 1) | Warrant 1A       | Warrant 1B      | 4 <sup>th</sup> HIGHEST PEAK HOUR (Warrant 2) | Warrant 2        |
|------|-----------------------------------------|------------------------|-----------------------------------------------|------------------|-----------------|-----------------------------------------------|------------------|
|      |                                         |                        |                                               | (70%)<br>350/105 | (70%)<br>525/53 |                                               | (70%)<br>1000/60 |
| 2025 | 1491/210                                | 15862/2234             | 888/125                                       | Y/Y              | Y/Y             | 1233/174                                      | Y/Y              |
| 2030 | 1616/265                                | 17191/2819             | 963/158                                       | Y/Y              | Y/Y             | 1336/219                                      | Y/Y              |
| 2035 | 1756/329                                | 18680/3500             | 1046/196                                      | Y/Y              | Y/Y             | 1452/272                                      | Y/Y              |

**Table 23: TRAFFIC SIGNAL WARRANTS (CONVENTIONAL METHOD), FOUR LANE GEOMETRY**

| YEAR | HIGHEST PEAK HOUR VOLUMES (MAJOR/MINOR) | ESTIMATED DAILY VOLUME | 8 <sup>th</sup> HIGHEST PEAK HOUR (Warrant 1) | Warrant 1A       | Warrant 1B      | 4 <sup>th</sup> HIGHEST PEAK HOUR (Warrant 2) | Warrant 2        |
|------|-----------------------------------------|------------------------|-----------------------------------------------|------------------|-----------------|-----------------------------------------------|------------------|
|      |                                         |                        |                                               | (70%)<br>420/105 | (70%)<br>630/70 |                                               | (70%)<br>1000/80 |
| 2025 | 1491/210                                | 15862/2234             | 888/125                                       | Y/Y              | Y/Y             | 1233/174                                      | Y/Y              |
| 2030 | 1616/265                                | 17191/2819             | 963/158                                       | Y/Y              | Y/Y             | 1336/219                                      | Y/Y              |
| 2035 | 1756/329                                | 18680/3500             | 1046/196                                      | Y/Y              | Y/Y             | 1452/272                                      | Y/Y              |

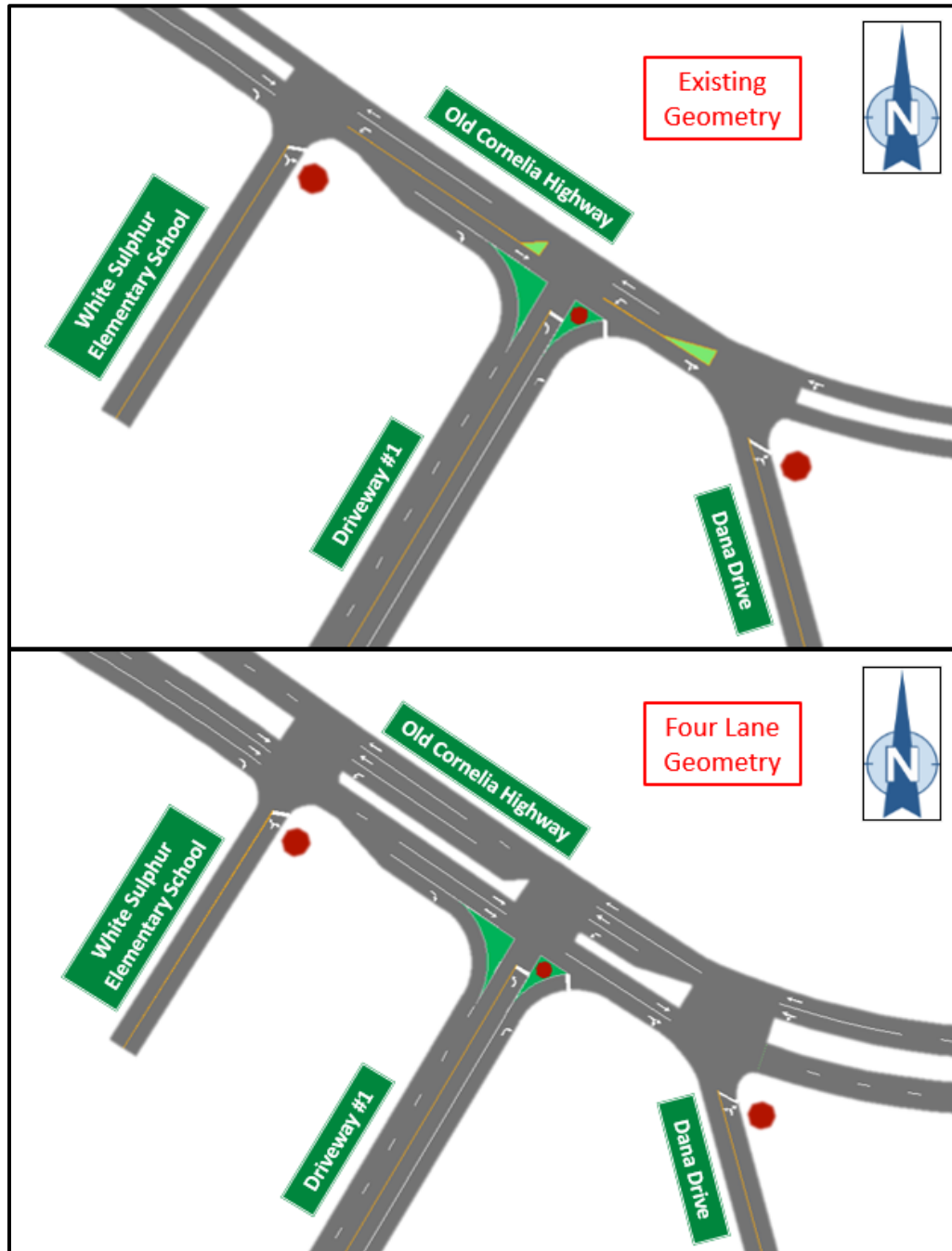
Warrant analysis indicates that the intersection meets the 100% threshold for signal warrants 1 and 2 using the conventional method beginning in 2025 for both existing and proposed geometry.



## MINOR STREET STOP CONTROL, WITH ADDED TURN LANES

The first alternative evaluated at the site driveway was minor street stop control with added turn lanes. Figure 21 below shows the intersection with turn lane improvements and with the existing and four lane geometry.

Figure 21: MINOR STREET STOP CONTROL, WITH ADDED TURN LANES



The capacity analysis results for the site driveway are provided in Tables 24 and 25. The delay for the intersections at White Sulphur Elementary School and Dana Drive maintain the same results listed in Tables 19 and 21. Capacity analysis results for each of the Driveway #1 improvements and the nearby intersections are included in Appendix M.

**Table 24: CAPACITY ANALYSIS RESULTS – ADDED TURN LANES (TWO LANE GEOMETRY)**

| INTERSECTION                   | MOVEMENT | PHASE 1 (2025)   |                 | PHASE 2 (2030) |                 | PHASE 3 (2035) |                  |
|--------------------------------|----------|------------------|-----------------|----------------|-----------------|----------------|------------------|
|                                |          | AM PEAK HOUR     | PM PEAK HOUR    | AM PEAK HOUR   | PM PEAK HOUR    | AM PEAK HOUR   | PM PEAK HOUR     |
| Old Cornelia Hwy @ Driveway #1 | EBT      | -                | -               | -              | -               | -              | -                |
|                                | EBR      | -                | -               | -              | -               | -              | -                |
|                                | WBL      | A (8.8)          | B (14.1)        | A (9.1)        | C (16.8)        | A (9.4)        | C (23.8)         |
|                                | WBT      | -                | -               | -              | -               | -              | -                |
|                                | NBL      | <b>F (721.6)</b> | <b>F (*)</b>    | <b>F (*)</b>   | <b>F (*)</b>    | <b>F (*)</b>   | <b>F (*)</b>     |
|                                | NBR      | C (16.0)         | <b>E (35.1)</b> | C (19.5)       | <b>F (57.8)</b> | D (27.3)       | <b>F (132.9)</b> |

**Table 25: CAPACITY ANALYSIS RESULTS – ADDED TURN LANES (FOUR LANE GEOMETRY)**

| INTERSECTION                   | MOVEMENT | PHASE 1 (2025)   |              | PHASE 2 (2030)   |              | PHASE 3 (2035) |              |
|--------------------------------|----------|------------------|--------------|------------------|--------------|----------------|--------------|
|                                |          | AM PEAK HOUR     | PM PEAK HOUR | AM PEAK HOUR     | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR |
| Old Cornelia Hwy @ Driveway #1 | EBT      | -                | -            | -                | -            | -              | -            |
|                                | EBR      | -                | -            | -                | -            | -              | -            |
|                                | WBL      | A (8.8)          | B (14.2)     | A (9.1)          | C (17.0)     | A (9.4)        | C (24.2)     |
|                                | WBT      | -                | -            | -                | -            | -              | -            |
|                                | NBL      | <b>F (247.2)</b> | <b>F (*)</b> | <b>F (573.3)</b> | <b>F (*)</b> | <b>F (*)</b>   | <b>F (*)</b> |
|                                | NBR      | B (12.0)         | C (15.7)     | B (13.2)         | C (18.1)     | C (15.1)       | C (22.5)     |

Capacity results for the site driveway with added turn lanes indicate the following:

- Existing Geometry
  - Phase 1 (2025)
    - The northbound left turn movement is projected to operate at LOS 'F' for both peak hours.
    - The northbound right turn movement is projected to operate at LOS 'E' in the PM Peak Hour.
  - Phase 2 (2030)
    - The northbound left turn movement is projected to operate at LOS 'F' for both peak hours.
    - The northbound right turn movement is projected to operate at LOS 'F' in the PM Peak Hour.
  - Phase 3 (2035)
    - The northbound left turn movement is projected to operate at LOS 'F' for both peak hours.
    - The Northbound right turn movement is projected to operate at LOS 'F' in the PM Peak Hour.
- Four Lane Geometry
  - Phase 1 (2025)
    - The northbound left turn movement is projected to operate at LOS 'F' for both peak hours.
  - Phase 2 (2030)
    - The northbound left turn movement is projected to operate at LOS 'F' for both peak hours.
  - Phase 3 (2035)
    - The northbound left turn movement is projected to operate at LOS 'F' for both peak hours.



Tables 26 and 27 below shows the corresponding 95<sup>th</sup> percentile queue lengths (in feet) for each approach at the intersection of Old Cornelia Highway and Driveway #1, as well as the adjacent intersections.

**Table 26: 95<sup>TH</sup> PERCENTILE QUEUE LENGTH (FT) – ADDED TURN LANES (TWO LANE GEOMETRY)**

| INTERSECTION                                       | MOVEMENT | PHASE 1 (2025) |              | PHASE 2 (2030) |              | PHASE 3 (2035) |              |
|----------------------------------------------------|----------|----------------|--------------|----------------|--------------|----------------|--------------|
|                                                    |          | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR |
| Old Cornelia Hwy @ Dana Dr                         | EBT/R    | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL/T    | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | NBL/R    | 18             | 13           | 25             | 20           | 35             | 30           |
| Old Cornelia Hwy @ White Sulphur Elementary School | EBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | EBR      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL      | 10             | 5            | 13             | 8            | 15             | 10           |
|                                                    | WBT      | 0              | 0            | 0              | 0            | 0              | 0            |
| Old Cornelia Hwy @ Driveway #1                     | NBL/R    | 450            | 123          | 568            | 188          | 683            | 288          |
|                                                    | EBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | EBR      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL      | 5              | 43           | 8              | 65           | 10             | 118          |
|                                                    | WBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | NBL      | 518            | 445          | 753            | 603          | 1045           | 780          |
| Old Cornelia Hwy @ Driveway #1                     | NBR      | 45             | 73           | 70             | 130          | 123            | 243          |

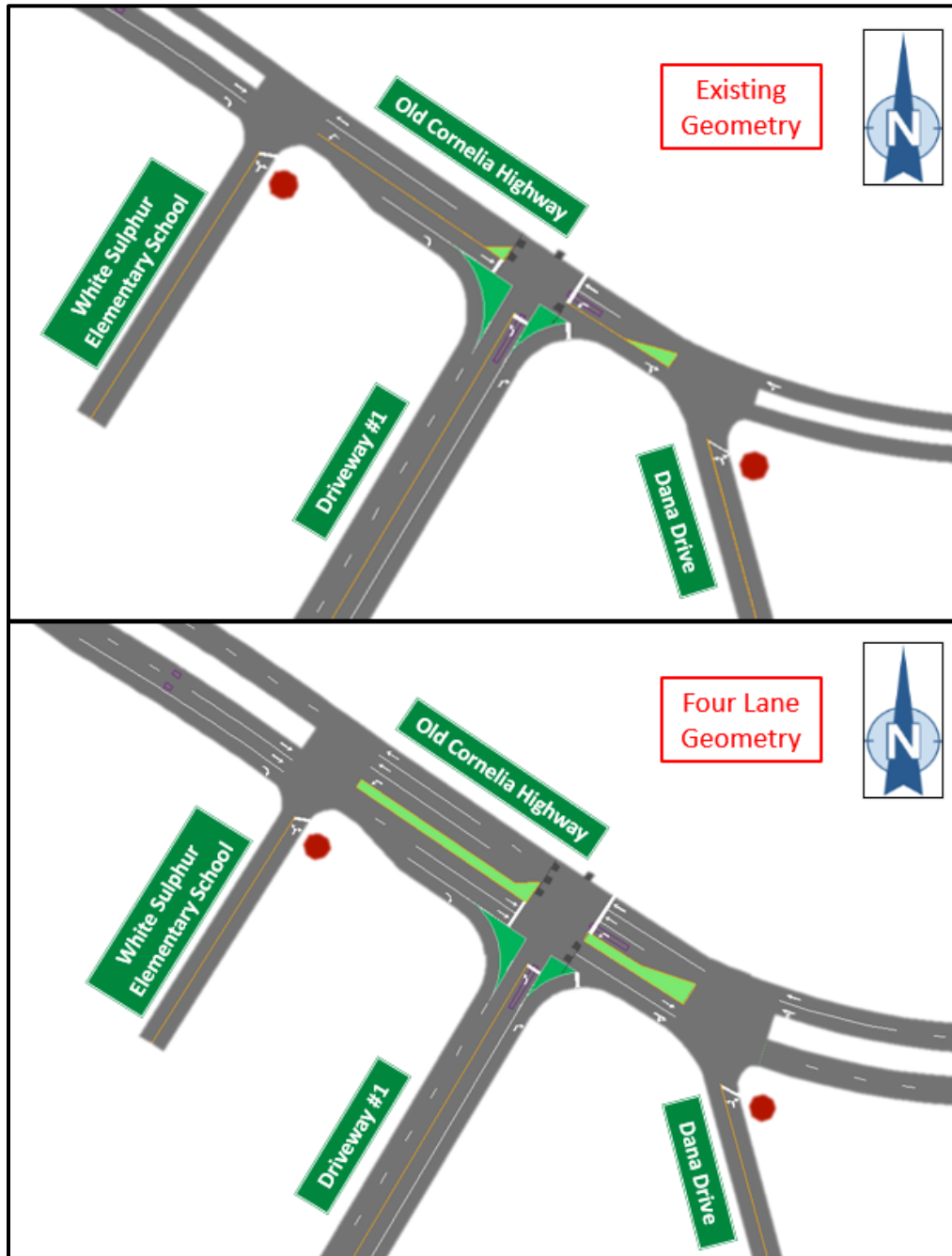
**Table 27: 95<sup>TH</sup> PERCENTILE QUEUE LENGTH (FT)– ADDED TURN LANES (FOUR LANE GEOMETRY)**

| INTERSECTION                                       | MOVEMENT | PHASE 1 (2025) |              | PHASE 2 (2030) |              | PHASE 3 (2035) |              |
|----------------------------------------------------|----------|----------------|--------------|----------------|--------------|----------------|--------------|
|                                                    |          | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR |
| Old Cornelia Hwy @ Dana Dr                         | EBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | EBT/R    | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL/T    | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | NBL/R    | 10             | 10           | 13             | 13           | 18             | 20           |
| Old Cornelia Hwy @ White Sulphur Elementary School | EBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | EBR      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL      | 10             | 5            | 13             | 8            | 15             | 10           |
|                                                    | WBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | NBL/R    | 270            | 73           | 390            | 118          | 533            | 205          |
| Old Cornelia Hwy @ Driveway #1                     | EBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | EBR      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL      | 5              | 43           | 8              | 65           | 10             | 120          |
|                                                    | WBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | NBL      | 345            | 428          | 588            | 595          | 898            | 778          |
|                                                    | NBR      | 30             | 30           | 43             | 43           | 63             | 70           |

## TRAFFIC SIGNAL

The second alternative evaluated at the site driveway was a traffic signal, with additional turn lanes. Figure 22 below shows the intersection under signal control and with the existing and four lane geometry.

**Figure 22: TRAFFIC SIGNAL, WITH ADDED TURN LANES**



The capacity analysis results for the site driveway are provided in Tables 28 and 29.

**Table 28: CAPACITY ANALYSIS RESULTS – TRAFFIC SIGNAL (TWO LANE GEOMETRY)**

| INTERSECTION                      | MOVEMENT | PHASE 1 (2025) |                 | PHASE 2 (2030) |                 | PHASE 3 (2035)  |                  |
|-----------------------------------|----------|----------------|-----------------|----------------|-----------------|-----------------|------------------|
|                                   |          | AM PEAK HOUR   | PM PEAK HOUR    | AM PEAK HOUR   | PM PEAK HOUR    | AM PEAK HOUR    | PM PEAK HOUR     |
| Old Cornelia Hwy @<br>Driveway #1 | Signal   | B (11.3)       | B (16.3)        | B (15.6)       | D (45.6)        | C (30.6)        | <b>E (78.5)</b>  |
|                                   | EBT      | A (8.3)        | B (14.1)        | B (10.3)       | D (47.5)        | B (13.2)        | <b>E (78.8)</b>  |
|                                   | EBR      | -              | -               | -              | -               | -               | -                |
|                                   | WBL      | A (5.4)        | C (25.0)        | A (7.0)        | <b>F (85.1)</b> | A (9.6)         | <b>F (155.5)</b> |
|                                   | WBT      | A (7.3)        | A (2.7)         | B (11.3)       | A (3.5)         | C (32.3)        | A (3.8)          |
|                                   | NBL      | D (37.8)       | <b>E (63.9)</b> | D (45.3)       | <b>F (96.8)</b> | <b>E (62.8)</b> | <b>F (149.0)</b> |
|                                   | NBR      | -              | -               | -              | -               | -               | -                |

**Table 29: CAPACITY ANALYSIS RESULTS – TRAFFIC SIGNAL (FOUR LANE GEOMETRY)**

| INTERSECTION                      | MOVEMENT | PHASE 1 (2025) |              | PHASE 2 (2030) |              | PHASE 3 (2035) |              |
|-----------------------------------|----------|----------------|--------------|----------------|--------------|----------------|--------------|
|                                   |          | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR |
| Old Cornelia Hwy @<br>Driveway #1 | Signal   | A (7.8)        | A (8.5)      | A (9.3)        | B (10.4)     | B (13.6)       | B (13.7)     |
|                                   | EBT      | A (7.8)        | A (8.6)      | A (9.1)        | B (10.4)     | B (17.3)       | B (13.6)     |
|                                   | EBR      | -              | -            | -              | -            | -              | -            |
|                                   | WBL      | A (4.9)        | A (7.3)      | A (5.8)        | B (10.8)     | B (14.9)       | B (17.4)     |
|                                   | WBT      | A (4.5)        | A (2.6)      | A (5.6)        | A (3.0)      | A (7.5)        | A (3.6)      |
|                                   | NBL      | C (22.5)       | C (28.9)     | C (24.4)       | C (31.1)     | C (28.1)       | C (34.2)     |
|                                   | NBR      | -              | -            | -              | -            | -              | -            |



Capacity results for the site driveway under signal control indicate the following:

- Existing Geometry
  - Phase 1 (2025)
    - The traffic signal is projected to operate at LOS 'B' for both peak hours.
  - Phase 2 (2030)
    - The traffic signal is projected to operate at LOS 'D' or better for both peak hours.
  - Phase 3 (2035)
    - The traffic signal is projected to operate at LOS 'C' in the AM Peak Hour and LOS 'E' in the PM Peak Hour.
- Four Lane Geometry
  - Phase 1 (2025)
    - The traffic signal is projected to operate at LOS 'A' for both peak hours.
  - Phase 2 (2030)
    - The traffic signal is projected to operate at LOS 'B' or better for both peak hours.
  - Phase 3 (2035)
    - The traffic signal is projected to operate at LOS 'B' for both peak hours.

Tables 30 and 31 below shows the corresponding 95<sup>th</sup> percentile queue lengths (in feet) for each approach at the intersection of Old Cornelia Highway and Driveway #1, as well as the adjacent intersections.

**Table 30: 95<sup>TH</sup> PERCENTILE QUEUE LENGTH (FT) – TRAFFIC SIGNAL (TWO LANE GEOMETRY)**

| INTERSECTION                                       | MOVEMENT | PHASE 1 (2025) |              | PHASE 2 (2030) |              | PHASE 3 (2035) |              |
|----------------------------------------------------|----------|----------------|--------------|----------------|--------------|----------------|--------------|
|                                                    |          | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR |
| Old Cornelia Hwy @ Dana Dr                         | EBT/R    | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL/T    | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | NBL/R    | 18             | 13           | 25             | 20           | 35             | 30           |
| Old Cornelia Hwy @ White Sulphur Elementary School | EBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | EBR      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL      | 10             | 5            | 13             | 8            | 15             | 10           |
|                                                    | WBT      | 0              | 0            | 0              | 0            | 0              | 0            |
| Old Cornelia Hwy @ Driveway #1                     | NBL/R    | 450            | 123          | 568            | 188          | 683            | 288          |
|                                                    | EBT      | 175            | 568          | 238            | 1368         | 325            | 1820         |
|                                                    | EBR      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL      | 10             | 200          | 20             | 455          | 33             | 703          |
|                                                    | WBT      | 233            | 75           | 383            | 135          | 893            | 160          |
|                                                    | NBL      | 200            | 218          | 283            | 350          | 425            | 505          |
| Old Cornelia Hwy @ Driveway #1                     | NBR      | 0              | 0            | 0              | 0            | 0              | 0            |

**Table 31: 95<sup>TH</sup> PERCENTILE QUEUE LENGTH (FT)– TRAFFIC SIGNAL (FOUR LANE GEOMETRY)**

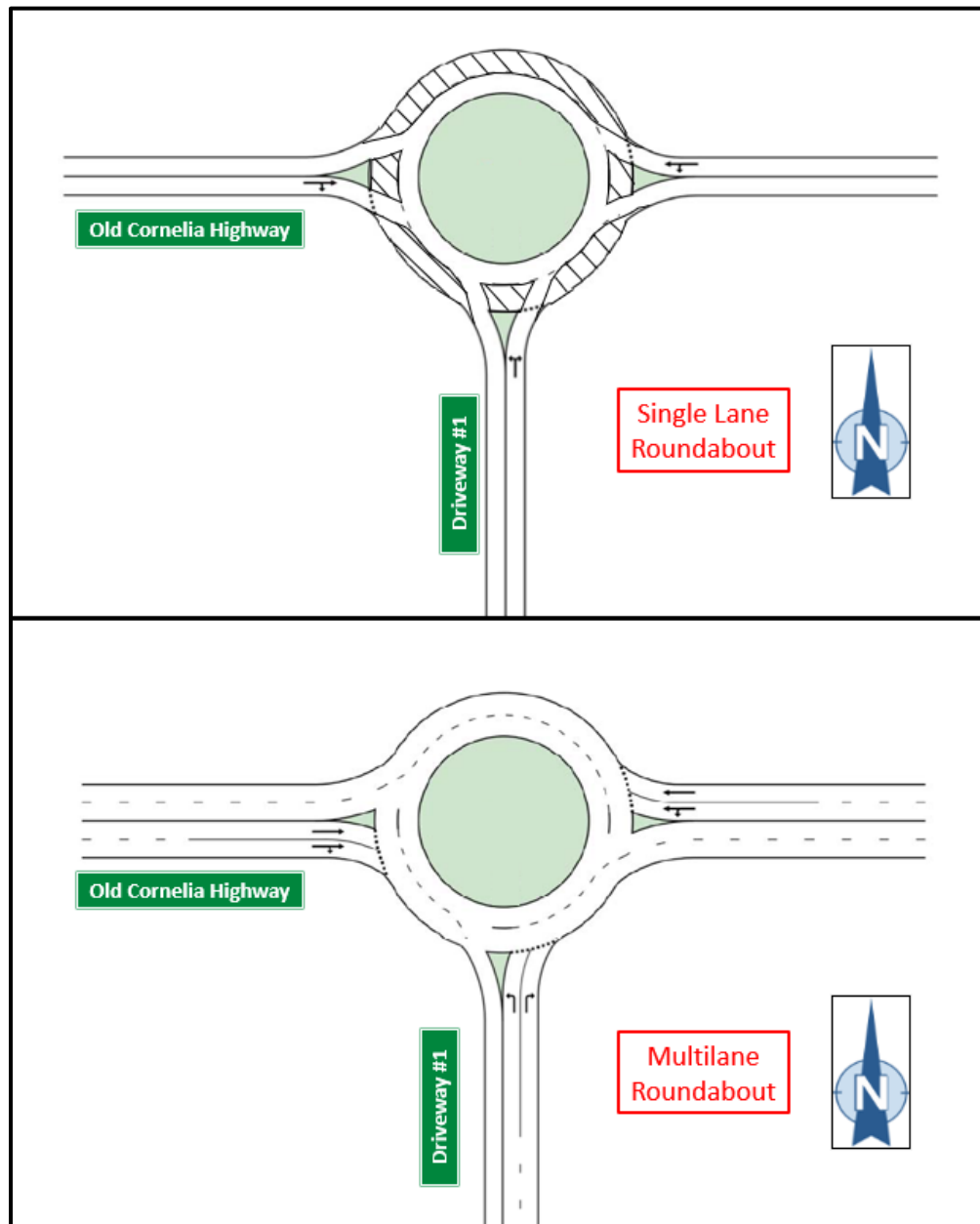
| INTERSECTION                                       | MOVEMENT | PHASE 1 (2025) |              | PHASE 2 (2030) |              | PHASE 3 (2035) |              |
|----------------------------------------------------|----------|----------------|--------------|----------------|--------------|----------------|--------------|
|                                                    |          | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR |
| Old Cornelia Hwy @ Dana Dr                         | EBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | EBT/R    | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL/T    | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | NBL/R    | 10             | 10           | 13             | 13           | 18             | 20           |
| Old Cornelia Hwy @ White Sulphur Elementary School | EBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | EBR      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL      | 10             | 5            | 13             | 8            | 15             | 10           |
|                                                    | WBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | NBL/R    | 270            | 73           | 390            | 118          | 533            | 205          |
| Old Cornelia Hwy @ Driveway #1                     | EBT      | 53             | 138          | 73             | 190          | 153            | 258          |
|                                                    | EBR      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL      | 8              | 23           | 13             | 43           | 45             | 138          |
|                                                    | WBT      | 45             | 13           | 75             | 23           | 148            | 35           |
|                                                    | NBL      | 113            | 98           | 160            | 135          | 233            | 188          |
|                                                    | NBR      | 0              | 0            | 0              | 0            | 0              | 0            |

Based on the queuing analysis, the traffic signal will experience queues that will extend into the adjacent intersections with both the existing and four lane geometry beginning in Phase 1 (2025).

## ROUNDAABOUT

The third alternative evaluated at the site driveway was a roundabout. This alternative was evaluated as a single lane roundabout with the existing geometry, and as a multilane roundabout with widened four lane geometry. Figure 23 below shows the intersection under roundabout control improvements and with the existing and four lane geometry.

**Figure 23: SINGLE/MULTILANE ROUNDAABOUT**





The capacity analysis results for the site driveway are provided in Tables 32 and 33.

**Table 32: CAPACITY ANALYSIS RESULTS – SINGLE LANE ROUNDABOUT (TWO LANE GEOMETRY)**

| INTERSECTION                   | MOVEMENT | PHASE 1 (2025)  |                  | PHASE 2 (2030)   |                  | PHASE 3 (2035)   |                  |
|--------------------------------|----------|-----------------|------------------|------------------|------------------|------------------|------------------|
|                                |          | AM PEAK HOUR    | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     |
| Old Cornelia Hwy @ Driveway #1 | EBT/R    | A (8.9)         | <b>F (171.7)</b> | A (9.8)          | <b>F (257.7)</b> | B (10.6)         | <b>F (373.0)</b> |
|                                | WBL/T    | <b>F (57.3)</b> | B (12.9)         | <b>F (107.1)</b> | C (17.1)         | <b>F (170.6)</b> | D (26.6)         |
|                                | NBL/R    | B (12.9)        | C (24.0)         | C (19.0)         | D (25.4)         | <b>E (35.7)</b>  | D (26.3)         |

**Table 33: CAPACITY ANALYSIS RESULTS – MULTILANE ROUNDABOUT (FOUR LANE GEOMETRY)**

| INTERSECTION                   | MOVEMENT | PHASE 1 (2025) |              | PHASE 2 (2030) |              | PHASE 3 (2035) |              |
|--------------------------------|----------|----------------|--------------|----------------|--------------|----------------|--------------|
|                                |          | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR |
| Old Cornelia Hwy @ Driveway #1 | EBT/R    | A (4.9)        | B (10.9)     | A (5.2)        | B (13.3)     | A (5.5)        | C (18.7)     |
|                                | WBL/T    | A (8.2)        | A (5.9)      | A (9.4)        | A (6.5)      | B (11.0)       | A (7.4)      |
|                                | NBL/R    | A (5.9)        | A (8.2)      | A (6.6)        | B (10.1)     | A (7.5)        | B (13.8)     |

Capacity results for the site driveway under roundabout control indicate the following:

- Existing Geometry
  - Phase 1 (2025)
    - The single lane roundabout is projected to operate at LOS 'F' on the westbound approach in the AM Peak Hour.
    - The single lane roundabout is projected to operate at LOS 'F' on the eastbound approach in the PM Peak Hour.
  - Phase 2 (2030)
    - The single lane roundabout is projected to operate at LOS 'F' on the westbound approach in the AM Peak Hour.
    - The single lane roundabout is projected to operate at LOS 'F' on the eastbound approach in the PM Peak Hour.
  - Phase 3 (2035)
    - The single lane roundabout is projected to operate at LOS 'F' on the westbound approach in the AM Peak Hour.
    - The single lane roundabout is projected to operate at LOS 'E' on the northbound approach in the AM Peak Hour.
    - The single lane roundabout is projected to operate at LOS 'F' on the eastbound approach in the PM Peak Hour.
- Four Lane Geometry
  - Phase 1 (2025)
    - The multilane roundabout is projected to operate at LOS 'B' or better for both peak hours on all approaches.
  - Phase 2 (2030)
    - The multilane roundabout is projected to operate at LOS 'B' or better for both peak hours on all approaches.
  - Phase 3 (2035)
    - The multilane roundabout is projected to operate at LOS 'C' or better for both peak hours on all approaches.

Tables 34 and 35 below shows the corresponding 95<sup>th</sup> percentile queue lengths (in feet) for each approach at the intersection of Old Cornelia Highway and Driveway #1, as well as the adjacent intersections.

**Table 34: 95<sup>TH</sup> PERCENTILE QUEUE LENGTH (FT) – SINGLE LANE ROUNDABOUT (TWO LANE GEOMETRY)**

| INTERSECTION                                       | MOVEMENT | PHASE 1 (2025) |              | PHASE 2 (2030) |              | PHASE 3 (2035) |              |
|----------------------------------------------------|----------|----------------|--------------|----------------|--------------|----------------|--------------|
|                                                    |          | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR |
| Old Cornelia Hwy @ Dana Dr                         | EBT/R    | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL/T    | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | NBL/R    | 18             | 13           | 25             | 20           | 35             | 30           |
| Old Cornelia Hwy @ White Sulphur Elementary School | EBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | EBR      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL      | 10             | 5            | 13             | 8            | 15             | 10           |
|                                                    | WBT      | 0              | 0            | 0              | 0            | 0              | 0            |
| Old Cornelia Hwy @ Driveway #1                     | NBL/R    | 450            | 123          | 568            | 188          | 683            | 288          |
|                                                    | EBT/R    | 137            | 3893         | 160            | 5178         | 185            | 6803         |
|                                                    | WBL/T    | 1669           | 191          | 2431           | 403          | 3349           | 807          |
|                                                    | NBL/R    | 135            | 177          | 256            | 226          | 554            | 289          |

**Table 35: 95<sup>TH</sup> PERCENTILE QUEUE LENGTH (FT)– MULTILANE ROUNDABOUT (FOUR LANE GEOMETRY)**

| INTERSECTION                                       | MOVEMENT | PHASE 1 (2025) |              | PHASE 2 (2030) |              | PHASE 3 (2035) |              |
|----------------------------------------------------|----------|----------------|--------------|----------------|--------------|----------------|--------------|
|                                                    |          | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR |
| Old Cornelia Hwy @ Dana Dr                         | EBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | EBT/R    | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL/T    | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | NBL/R    | 10             | 10           | 13             | 13           | 18             | 20           |
| Old Cornelia Hwy @ White Sulphur Elementary School | EBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | EBR      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL      | 10             | 5            | 13             | 8            | 15             | 10           |
|                                                    | WBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | NBL/R    | 270            | 73           | 390            | 118          | 533            | 205          |
| Old Cornelia Hwy @ Driveway #1                     | EBT/R    | 34             | 122          | 40             | 245          | 47             | 441          |
|                                                    | WBL/T    | 79             | 47           | 95             | 57           | 153            | 71           |
|                                                    | NBL/R    | 24             | 27           | 32             | 40           | 42             | 71           |

Based on the queuing analysis, both the single lane and multilane roundabouts will experience queues that will extend into the adjacent intersections beginning in Phase 1 (2025).



## DRIVEWAY #1 CONSOLIDATED IMPROVEMENTS

The alternatives evaluated at the intersection of Old Cornelia Highway and Driveway #1 either do not sufficiently improve operation at the intersection or creates queues that block the nearby unsignalized intersections at White Sulphur Elementary School and Dana Drive. Therefore, additional alternatives were evaluated to implement access control and improve the operation of the existing minor street stop controlled intersections.

The following alternatives were evaluated at Old Cornelia Highway and Driveway #1:

- Traffic Signal, with Dana Drive and White Sulphur Elementary School consolidated at the proposed location of Driveway #1
- Dumbbell Roundabout, with Dana Drive consolidated with Driveway #1
- Elliptical Roundabout

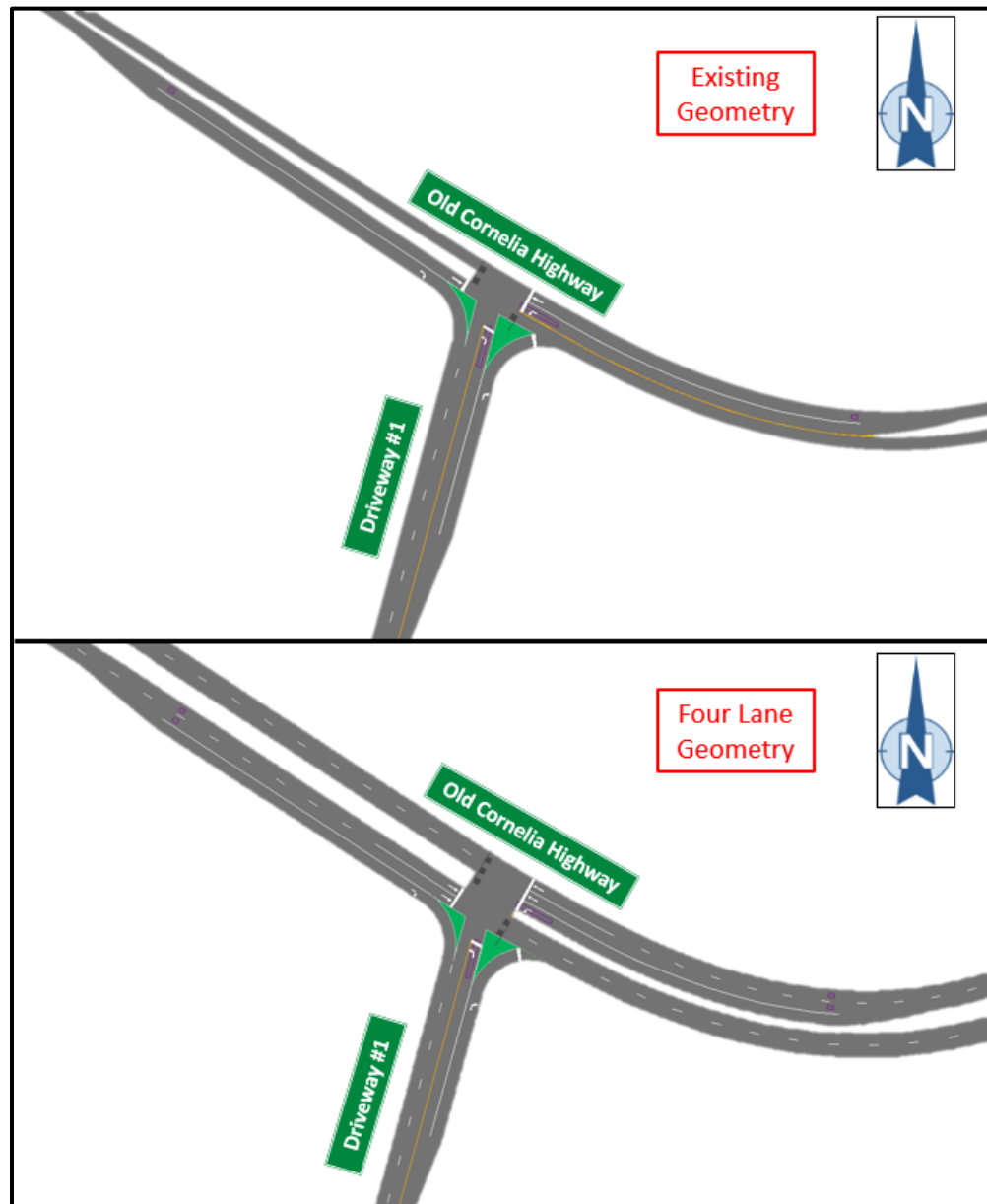
Additionally, each alternative was evaluated under two scenarios: with the existing geometry and with four lane widening on Old Cornelia Highway.

Capacity analysis results for each of the Driveway #1 consolidated improvements are included in Appendix N.

## ALTERNATIVE A: TRAFFIC SIGNAL

The first consolidation alternative evaluated was a traffic signal. In this scenario, both White Sulphur Elementary School and Dana Drive would have access to the development road and have a single access point to Old Cornelia Highway from Driveway #1. Figure 24 below shows the consolidated intersection under signal control and with the existing and four lane geometry.

Figure 24: TRAFFIC SIGNAL, CONSOLIDATED DRIVEWAY



The capacity analysis results for the site driveway are provided in Tables 36 and 37.

**Table 36: CAPACITY ANALYSIS RESULTS – ALTERNATIVE A (TWO LANE GEOMETRY)**

| INTERSECTION                   | MOVEMENT | PHASE 1 (2025) |                 | PHASE 2 (2030) |                 | PHASE 3 (2035) |                  |
|--------------------------------|----------|----------------|-----------------|----------------|-----------------|----------------|------------------|
|                                |          | AM PEAK HOUR   | PM PEAK HOUR    | AM PEAK HOUR   | PM PEAK HOUR    | AM PEAK HOUR   | PM PEAK HOUR     |
| Old Cornelia Hwy @ Driveway #1 | Signal   | B (13.1)       | B (17.7)        | B (17.8)       | D (50.2)        | C (26.0)       | <b>F (83.3)</b>  |
|                                | EBT      | B (10.6)       | B (15.5)        | B (12.5)       | D (54.6)        | B (15.7)       | <b>F (88.4)</b>  |
|                                | EBR      | -              | -               | -              | -               | -              | -                |
|                                | WBL      | A (6.9)        | C (27.1)        | A (8.6)        | <b>F (89.0)</b> | B (11.1)       | <b>F (169.6)</b> |
|                                | WBT      | A (9.2)        | A (3.1)         | B (13.7)       | A (3.9)         | C (23.1)       | A (4.7)          |
|                                | NBL      | C (31.4)       | <b>E (62.1)</b> | D (40.4)       | <b>F (92.5)</b> | D (52.5)       | <b>F (116.6)</b> |
|                                | NBR      | -              | -               | -              | -               | -              | -                |

**Table 37: CAPACITY ANALYSIS RESULTS – ALTERNATIVE A (FOUR LANE GEOMETRY)**

| INTERSECTION                   | MOVEMENT | PHASE 1 (2025) |              | PHASE 2 (2030) |              | PHASE 3 (2035) |              |
|--------------------------------|----------|----------------|--------------|----------------|--------------|----------------|--------------|
|                                |          | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR |
| Old Cornelia Hwy @ Driveway #1 | Signal   | A (9.3)        | A (9.1)      | B (10.7)       | B (11.0)     | B (14.6)       | B (14.7)     |
|                                | EBT      | A (9.8)        | A (9.1)      | B (11.1)       | B (11.0)     | B (18.2)       | B (14.3)     |
|                                | EBR      | -              | -            | -              | -            | -              | -            |
|                                | WBL      | A (6.2)        | A (7.7)      | A (7.3)        | B (11.4)     | B (17.6)       | B (18.9)     |
|                                | WBT      | A (5.6)        | A (2.8)      | A (6.8)        | A (3.3)      | A (8.4)        | A (3.8)      |
|                                | NBL      | C (20.6)       | C (29.0)     | C (22.2)       | C (31.3)     | C (24.0)       | D (35.8)     |
|                                | NBR      | -              | -            | -              | -            | -              | -            |



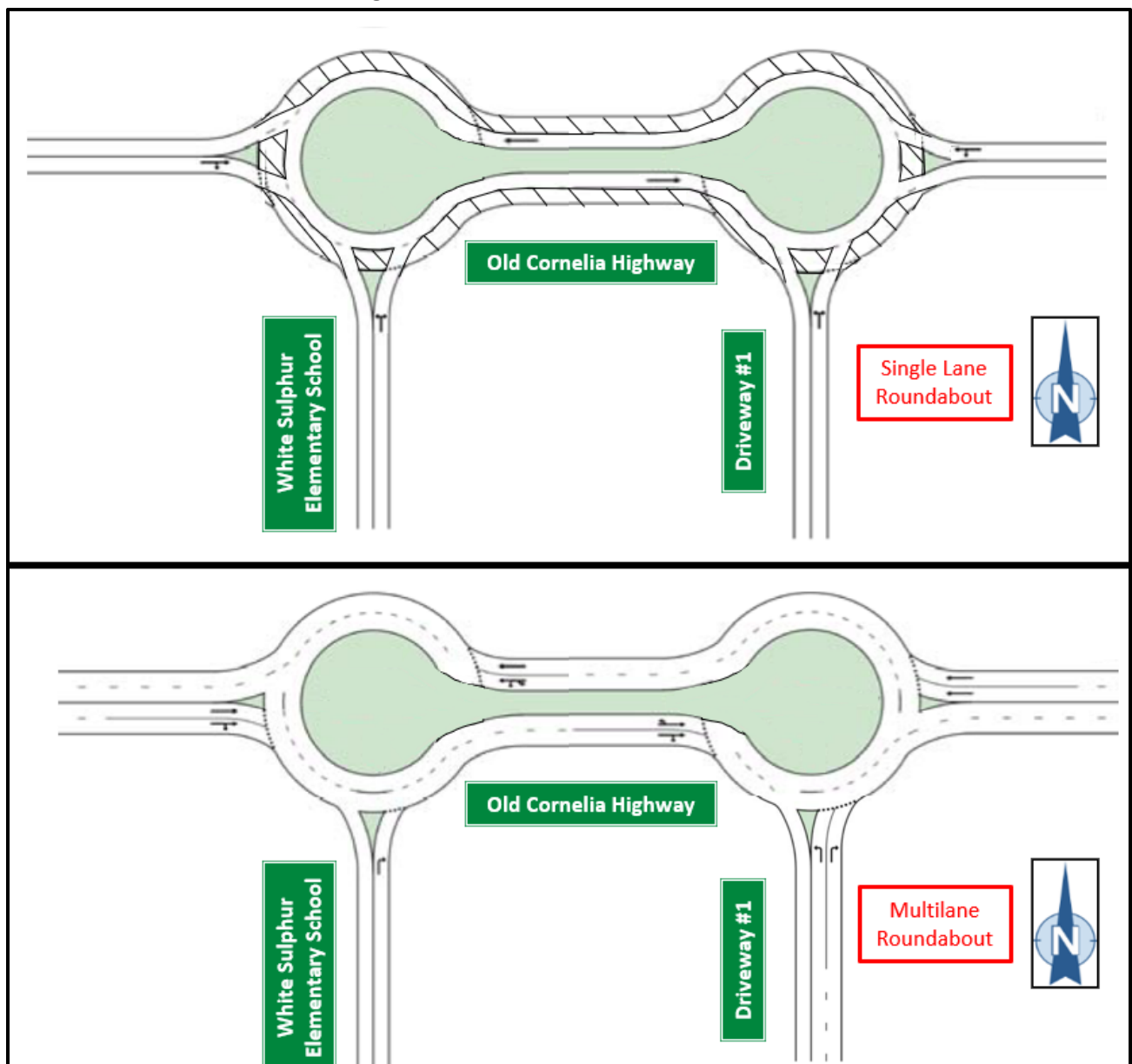
Capacity results for the consolidated site driveway under traffic control indicate the following:

- Existing Geometry
  - Phase 1 (2025)
    - The traffic signal is projected to operate at LOS 'B' for both peak hours.
  - Phase 2 (2030)
    - The traffic signal is projected to operate at LOS 'D' or better for both peak hours.
  - Phase 3 (2035)
    - The traffic signal is projected to operate at LOS 'C' in the AM Peak Hour and LOS 'F' in the PM Peak Hour.
- Four Lane Geometry
  - Phase 1 (2025)
    - The traffic signal is projected to operate at LOS 'A' for both peak hours.
  - Phase 2 (2030)
    - The traffic signal is projected to operate at LOS 'B' for both peak hours.
  - Phase 3 (2035)
    - The traffic signal is projected to operate at LOS 'B' for both peak hours.

## ALTERNATIVE B: DUMBBELL ROUNDABOUT

The second consolidation alternative evaluated was a dumbbell roundabout. A dumbbell roundabout consists of two roundabouts connected together in a relatively short distance. The first roundabout is at the intersection of Old Cornelia Highway And White Sulphur elementary School, and the second roundabout is at the intersection of Old Cornelia Highway and the consolidated driveway of Dana Drive and Driveway #1. This alternative was evaluated as single lane roundabouts with the existing geometry, and multilane roundabouts with the widened four lane geometry. Figure 25 below shows the dumbbell roundabout configuration with the existing and four lane geometry.

Figure 25: DUMBBELL ROUNDABOUT



The capacity analysis results for the site driveway are provided in Tables 38 and 39.

**Table 38: CAPACITY ANALYSIS RESULTS – ALTERNATIVE B (TWO LANE GEOMETRY)**

| INTERSECTION                                             | MOVEMENT | PHASE 1 (2025)  |                  | PHASE 2 (2030)   |                  | PHASE 3 (2035)   |                  |
|----------------------------------------------------------|----------|-----------------|------------------|------------------|------------------|------------------|------------------|
|                                                          |          | AM PEAK HOUR    | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     |
| Old Cornelia Hwy @<br>White Sulphur<br>Elementary School | EBT/R    | B (13.1)        | <b>F (198.6)</b> | C (15.2)         | <b>F (272.5)</b> | C (17.8)         | <b>F (367.9)</b> |
|                                                          | WBL/T    | <b>F (99.6)</b> | B (12.3)         | <b>F (145.6)</b> | C (15.4)         | <b>F (193.3)</b> | C (22.1)         |
|                                                          | NBL/R    | B (11.0)        | C (22.8)         | B (13.2)         | C (24.8)         | C (16.4)         | D (28.7)         |
| Old Cornelia Hwy @<br>Driveway #1                        | EBT/R    | B (11.0)        | <b>F (140.2)</b> | B (12.5)         | <b>F (192.9)</b> | B (14.2)         | <b>F (257.6)</b> |
|                                                          | WBL/T    | <b>F (87.2)</b> | B (14.0)         | <b>F (153.1)</b> | C (18.5)         | <b>F (150.7)</b> | D (29.9)         |
|                                                          | NBL/R    | B (14.3)        | D (33.2)         | C (21.3)         | <b>E (47.2)</b>  | <b>E (40.8)</b>  | <b>F (69.2)</b>  |

**Table 39: CAPACITY ANALYSIS RESULTS – ALTERNATIVE B (FOUR LANE GEOMETRY)**

| INTERSECTION                                             | MOVEMENT | PHASE 1 (2025) |              | PHASE 2 (2030) |              | PHASE 3 (2035) |              |
|----------------------------------------------------------|----------|----------------|--------------|----------------|--------------|----------------|--------------|
|                                                          |          | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR |
| Old Cornelia Hwy @<br>White Sulphur<br>Elementary School | EBT/R    | A (5.9)        | B (12.3)     | A (6.3)        | C (15.2)     | A (6.7)        | C (21.4)     |
|                                                          | WBL/T    | A (7.1)        | A (4.8)      | A (7.8)        | A (5.1)      | A (8.5)        | A (5.5)      |
|                                                          | NBL/R    | A (9.0)        | B (11.7)     | A (9.7)        | B (14.7)     | B (10.4)       | C (21.5)     |
| Old Cornelia Hwy @<br>Driveway #1                        | EBT/R    | A (4.7)        | A (7.6)      | A (4.9)        | A (8.5)      | A (5.1)        | A (9.8)      |
|                                                          | WBL/T    | A (9.2)        | A (6.0)      | B (10.9)       | A (6.7)      | B (13.3)       | A (7.6)      |
|                                                          | NBL/R    | A (6.2)        | A (6.9)      | A (7.0)        | A (7.8)      | A (7.8)        | A (9.1)      |



Capacity results of the dumbbell roundabout indicate the following:

- Existing Geometry
  - Phase 1 (2025)
    - The single lane roundabout of White Sulphur Elementary School is projected to operate at LOS 'F' on the westbound approach in the AM Peak Hour, and at LOS 'F' on the eastbound approach in the PM Peak Hour.
    - The single lane roundabout of Driveway #1 is projected to operate at LOS 'F' on the westbound approach in the AM Peak Hour, and at LOS 'F' on the eastbound approach in the PM Peak Hour.
  - Phase 2 (2030)
    - The single lane roundabout of White Sulphur Elementary School is projected to operate at LOS 'F' on the westbound approach in the AM Peak Hour, and at LOS 'F' on the eastbound approach in the PM Peak Hour.
    - The single lane roundabout of Driveway #1 is projected to operate at LOS 'F' on the westbound approach in the AM Peak Hour, at LOS 'F' on the eastbound approach in the PM Peak Hour, and at LOS 'E' on the northbound approach in the PM Peak Hour.
  - Phase 3 (2035)
    - The single lane roundabout of White Sulphur Elementary School is projected to operate at LOS 'F' on the westbound approach in the AM Peak Hour, and at LOS 'F' on the eastbound approach in the PM Peak Hour.
    - The single lane roundabout of Driveway #1 is projected to operate at LOS 'F' on the westbound approach in the AM Peak Hour, at LOS 'F' on the eastbound approach in the PM Peak Hour, and at LOS 'E' or worse on the northbound approach for both peak hours.

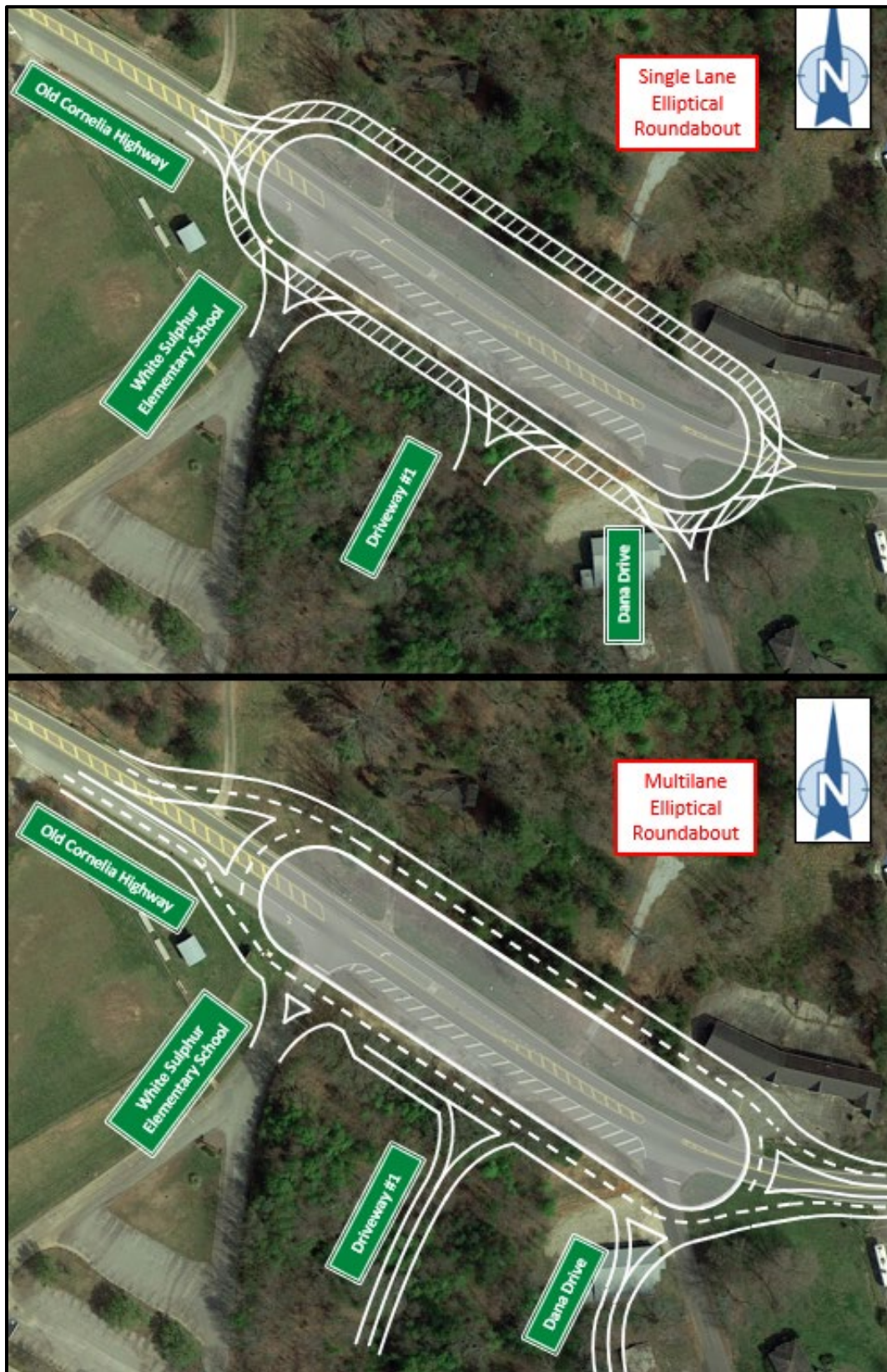
- Four Lane Geometry
  - Phase 1 (2025)
    - The multilane roundabout of White Sulphur Elementary School is projected to operate at LOS 'B' or better for all approaches during both peak hours.
    - The multilane roundabout of Driveway #1 is projected to operate at LOS 'A' for all approaches during both peak hours.
  - Phase 2 (2030)
    - The multilane roundabout of White Sulphur Elementary School is projected to operate at LOS 'C' or better for all approaches during both peak hours.
    - The multilane roundabout of Driveway #1 is projected to operate at LOS 'B' for all approaches during both peak hours.
  - Phase 3 (2035)
    - The multilane roundabout of White Sulphur Elementary School is projected to operate at LOS 'C' or better for all approaches during both peak hours.
    - The multilane roundabout of Driveway #1 is projected to operate at LOS 'B' for all approaches during both peak hours.

### **ALTERNATIVE C: ELLIPTICAL ROUNDABOUT**

The third consolidation alternative evaluated was an elliptical roundabout. With this alternative, the roundabout retains three northbound approaches that connect to a single large roundabout. In order to distinct the three northbound approaches, White Sulphur Elementary School is defined as the northeast approach, Driveway #1 is defined as the northbound approach, and Dana Drive is defined as the northwest approach. This alternative was evaluated as a single lane roundabout with the existing geometry, and multilane roundabout with the widened four lane geometry. Figure 26 on the following page shows the elliptical roundabout configuration with the existing and four lane geometry.



Figure 26: ELLIPTICAL ROUNDABOUT



The capacity analysis results for the site driveway are provided in Tables 40 and 41.

**Table 40: CAPACITY ANALYSIS RESULTS – ALTERNATIVE C (TWO LANE GEOMETRY)**

| INTERSECTION                                                                        | MOVEMENT | PHASE 1 (2025)  |                  | PHASE 2 (2030)   |                  | PHASE 3 (2035)   |                  |
|-------------------------------------------------------------------------------------|----------|-----------------|------------------|------------------|------------------|------------------|------------------|
|                                                                                     |          | AM PEAK HOUR    | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     |
| Old Cornelia Hwy @<br>White Sulphur<br>Elementary School /<br>Driveway #1 / Dana Dr | EBT/R    | B (10.7)        | <b>F (154.0)</b> | B (11.2)         | <b>F (230.6)</b> | B (12.3)         | <b>F (343.0)</b> |
|                                                                                     | WBL/T    | <b>F (55.4)</b> | B (11.1)         | <b>F (183.0)</b> | B (13.8)         | <b>F (238.6)</b> | C (19.3)         |
|                                                                                     | NEBL/R   | A (7.0)         | C (16.9)         | A (7.6)          | C (17.0)         | A (8.6)          | C (17.1)         |
|                                                                                     | NBL/R    | C (20.8)        | <b>E (36.8)</b>  | <b>E (41.3)</b>  | <b>E (43.8)</b>  | <b>F (117.6)</b> | <b>E (48.4)</b>  |
|                                                                                     | NWBL/R   | A (7.5)         | A (9.5)          | B (10.2)         | A (9.4)          | B (12.8)         | A (9.1)          |

**Table 41: CAPACITY ANALYSIS RESULTS – ALTERNATIVE C (FOUR LANE GEOMETRY)**

| INTERSECTION                                                                        | MOVEMENT | PHASE 1 (2025) |              | PHASE 2 (2030) |              | PHASE 3 (2035) |              |
|-------------------------------------------------------------------------------------|----------|----------------|--------------|----------------|--------------|----------------|--------------|
|                                                                                     |          | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR |
| Old Cornelia Hwy @<br>White Sulphur<br>Elementary School /<br>Driveway #1 / Dana Dr | EBT/R    | A (6.0)        | B (12.9)     | A (6.5)        | C (16.4)     | A (7.1)        | D (25.4)     |
|                                                                                     | WBL/T    | A (9.6)        | A (6.1)      | B (14.2)       | A (6.7)      | C (19.6)       | A (7.7)      |
|                                                                                     | NEBL/R   | A (4.7)        | A (6.2)      | A (4.9)        | A (7.3)      | A (5.2)        | A (9.7)      |
|                                                                                     | NBL/R    | A (6.8)        | A (9.1)      | A (7.8)        | B (11.4)     | A (9.1)        | C (16.6)     |
|                                                                                     | NWBL/R   | A (4.3)        | A (4.8)      | A (4.4)        | A (5.2)      | A (4.6)        | A (6.0)      |

Capacity results of the elliptical roundabout indicate the following:

- Existing Geometry
  - Phase 1 (2025)
    - The westbound approach is projected to operate at LOS 'F' in the AM Peak Hour.
    - The eastbound approach is projected to operate at LOS 'F' in the PM Peak Hour.
    - The northbound approach of Driveway #1 is projected to operate at LOS 'E' in the PM Peak Hour.
  - Phase 2 (2030)
    - The westbound approach is projected to operate at LOS 'F' in the AM Peak Hour.
    - The eastbound approach is projected to operate at LOS 'F' in the PM Peak Hour.
    - The northbound approach of Driveway #1 is projected to operate at LOS 'E' for both peak hours.
  - Phase 3 (2035)
    - The westbound approach is projected to operate at LOS 'F' in the AM Peak Hour.
    - The eastbound approach is projected to operate at LOS 'F' in the PM Peak Hour.
    - The northbound approach of Driveway #1 is projected to operate at LOS 'E' or worse for both peak hours.
- Four Lane Geometry
  - Phase 1 (2025)
    - The elliptical roundabout is projected to operate at LOS 'B' or better on all approaches for both peak hours.
  - Phase 2 (2030)
    - The elliptical roundabout is projected to operate at LOS 'C' or better on all approaches for both peak hours.
  - Phase 3 (2035)
    - The elliptical roundabout is projected to operate at LOS 'D' or better on all approaches for both peak hours.



## SUMMARY OF FINDINGS

- The Sussex development is a residential development on approximately 472 acres. The site plan provides for 1,226 single-family homes, 924 multi-family homes, 190 townhomes, and a youth baseball park.
- A long range widening project on Old Cornelia Highway between Jesse Jewell Parkway and Joe Chandler Highway scheduled to begin construction in 2051.
- The development is proposed to initially have one access on Old Cornelia Highway between White Sulphur Elementary School and Dana Drive, with two future entrances planned on Old Cornelia Highway south of Jesse Jewell Parkway and Floyd Road. It was assumed that a second access point on Old Cornelia Highway would be open by 2030, and a third access point on Floyd Road would be open by 2035.
- The development is projected to be constructed at a rate of 160 homes per year, and is anticipated to be built-out by 2035. The three phases evaluated in the study were Phase 1 (2025), Phase 2 (2030), and Phase 3 (2035).
- Turning movement count data was collected at the study intersections on Wednesday, February 17, 2021. The AM Peak Hour was observed to be 7:15 to 8:15 AM, and the PM Peak Hour was observed to be 4:45 to 5:45 PM.
- Bi-directional 24-hour traffic data was collected on SR 14 on Wednesday, February 17, 2021.
  - Eastbound: 85<sup>th</sup> percentile speed of 46 mph, traffic volume of 6,476 vehicles per day, and truck percentage of 4.4%
  - Westbound: 85<sup>th</sup> percentile speed of 44 mph, traffic volume of 6,974 vehicles per day, and truck percentage of 5.3%
- Due to the COVID-19 pandemic, turning movement data was compared to a nearby GDOT count station (139-0210) in order to determine how the pandemic was affecting traffic patterns. It was determined that the collected data experienced a reduction of approximately 9%.
- Crash data at the study intersections indicates that of the 29 crashes that occurred between 2016-2020 right angle collisions were the most common crash, accounting for 31% of the total.
- Based on the Atlanta Regional Commission's population forecast for Hall County, the census data from the Hall County Strategic Plan, and the trend analysis for nearby GDOT Count Stations, an annual growth rate of 1.5% was established between the Existing Year (2021) to the Phase 3 Build Year.

- With the full build out in Phase 3 (2035), the residential development is projected to generate 18,535 net daily trips, with 1,381 trips (349 entering, 1,032 exiting) in the AM Peak Hour and 1,821 trips (1,138 entering, 683 exiting) in the PM Peak Hour. Trip distribution for the new trips were based on the existing AM Peak Hour distribution.
- It was assumed that 100% of the trips would use the east access on Old Cornelia Highway in Phase 1 (2025), 80% of the trips in Phase 2 (2030), and 60% of the trips in Phase 3 (2035).
- Under Existing 2021 conditions, capacity analysis results indicate that the following intersections are experiencing unacceptable operation:
  - Old Cornelia Highway and Dana Drive, which currently operates at LOS 'E' on the northbound approach in the PM Peak Hour.
  - Old Cornelia Highway and White Sulphur Elementary School, which currently operates at LOS 'E' or worse on the northbound approach in both peak hours.
  - Old Cornelia Highway and Oconee Circle, which currently operates at LOS 'F' on the northbound approach in the PM Peak Hour.
- Under No-Build conditions, capacity analysis results indicate that the following intersections are projected to experience unacceptable operation:
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'E' on the northbound approach beginning in 2025.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'E' or worse on the northbound approach beginning in 2025.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'E' or worse on the northbound and southbound approaches beginning in 2025.
- Under Build conditions, capacity analysis results indicate that the following intersections are projected to experience unacceptable operation:
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'E' on the northbound approach beginning in 2025.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'F' on the northbound approach beginning in 2025.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'E' or worse on the northbound and southbound approaches beginning in 2025.
  - Old Cornelia Highway and Driveway #1, which is projected to operate at LOS 'F' on the northbound approach beginning in 2025 and the westbound approach beginning in 2035.

- The No-Build and Build Conditions were also evaluated with widening on Old Cornelia Highway from two lanes to four lanes. Under No-Build conditions and with widening on Old Cornelia Highway, capacity analysis results indicate that the following intersections are projected to experience unacceptable operation:
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'E' on the northbound approach beginning in 2025.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'E' or worse on the northbound approach beginning in 2025.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'E' or worse on the northbound approach beginning in 2025 and the southbound approach beginning in 2035.
- Under Build conditions and with widening on Old Cornelia Highway capacity analysis results indicate that the following intersections are projected to experience unacceptable operation:
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'E' on the northbound approach beginning in 2025.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'F' on the northbound approach beginning in 2025.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'E' or worse on the northbound and southbound approaches beginning in 2025.
  - Old Cornelia Highway and Driveway #1, which is projected to operate at LOS 'F' on the northbound approach beginning in 2025 and the westbound approach beginning in 2035.
- The intersection of Old Cornelia Highway and Driveway #1 was evaluated for alternative traffic control, with both existing geometry and four lane geometry. The following improvements were evaluated:
  - Minor Street Stop Control, with added turn lanes
  - Traffic Signal
  - Multilane Roundabout
- Under Build conditions with turn lane improvements at the intersection of Old Cornelia Highway and Driveway #1:
  - With existing geometry, the northbound approach is projected to operate at LOS 'E' or worse beginning in 2025.
  - With the four lane widened geometry, the northbound left movement is projected to operate at LOS 'E' or worse beginning in 2025.



- Under Build conditions with signal control at the intersection of Old Cornelia Highway and Driveway #1:
  - With existing geometry, the signal is projected to operate at LOS 'C' in the AM Peak Hour and LOS 'E' in the PM Peak Hour in 2035.
  - With the four lane widened geometry, the signal is projected to operate at LOS 'B' for both peak hours in 2035.
  
- Under Build conditions with roundabout control at the intersection of Old Cornelia Highway and Driveway #1:
  - With a single lane roundabout, the intersection is projected to have several approaches that operate at LOS 'E' or worse for both peak hours in 2035.
  - With a multilane roundabout, the intersection is projected to operate at LOS 'C' or better on all approaches for both peak hours in 2035.
  
- All of the improvements evaluated at the intersection of Old Cornelia Highway and Driveway #1 operate poorly under projected conditions, or experience queuing that affects the adjacent intersections. Therefore, additional alternatives were evaluated to implement access control and improve the operation of the existing minor street stop controlled intersections.
  - Traffic Signal, with Dana Drive and White Sulphur Elementary School consolidated at the proposed location of Driveway #1
  - Dumbbell Roundabout, with Dana Drive consolidated with Driveway #1
  - Elliptical Roundabout
  
- Under Build conditions with signal control at the intersection of Old Cornelia Highway and the Consolidated Driveway:
  - With existing geometry, the signal is projected to operate at LOS 'C' in the AM Peak Hour and LOS 'F' in the PM Peak Hour in 2035.
  - With the four lane widened geometry, the signal is projected to operate at LOS 'B' for both peak hours in 2035.
  
- Under Build conditions with the dumbbell roundabout at the consolidated intersection of Old Cornelia Highway and White Sulphur Elementary School/Driveway #1/Dana Drive:
  - With a single lane dumbbell roundabout, the consolidated intersection is projected to have several approaches that operate at LOS 'E' or worse for both peak hours in 2035.
  - With a multilane dumbbell roundabout, the consolidated intersection is projected to operate at LOS 'C' or better on all approaches for both peak hours in 2035.

- Under Build conditions with the elliptical roundabout at the consolidated intersection of Old Cornelia Highway and White Sulphur Elementary School/Driveway #1/Dana Drive:
  - With a single lane elliptical roundabout, the consolidated intersection is projected to have several approaches that operate at LOS 'E' or worse for both peak hours in 2035.
  - With a multilane elliptical roundabout, the consolidated intersection is projected to operate at LOS 'D' or better on all approaches for both peak hours in 2035.

## CONCLUSION

Based on the findings in this study, any improvements implemented at Driveway #1 on Old Cornelia Highway could not be implemented without adversely affecting the adjacent intersections. Therefore, three alternatives were evaluated that would also address the operation of White Sulphur Elementary School and Dana Drive.

Alternative A operates at LOS 'D' with the existing geometry through 2030. However this alternative requires all of the driveways to be consolidated and connect on the development roadway, which will be difficult to implement given the terrain of the site.

Alternatives B and C have movements that operate at LOS 'E' or worse on several movements in 2025, but are more feasible forms of traffic control for the site driveway and the existing adjacent intersections.

It is recommended that the roadway of Old Cornelia Highway be widened to four lanes to accommodate for these Alternatives. A long range project is currently planned for widening, but the background growth of the roadway coupled with the development volume exacerbate the need for the project. The developer should work with GDOT for widening project, while the developer will be solely responsible for the selected Alternative.

The intersection of Old Cornelia Road and Oconee Circle is currently experiencing unacceptable LOS before adding the project volumes, and improvements should be implemented by local officials.

Figure 27 through 29 on the following pages show each of the three recommended Alternatives.



Figure 27: ALTERNATIVE A



Figure 28: ALTERNATIVE B

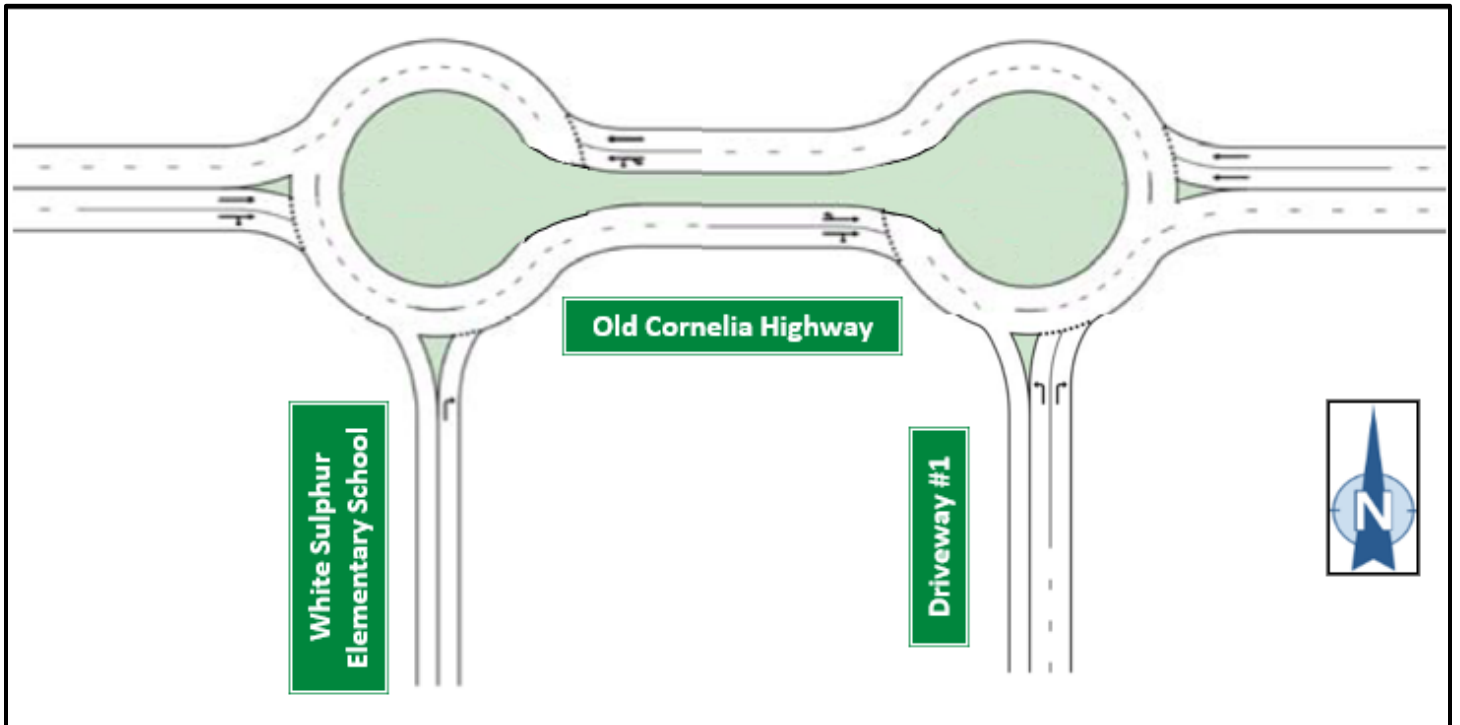
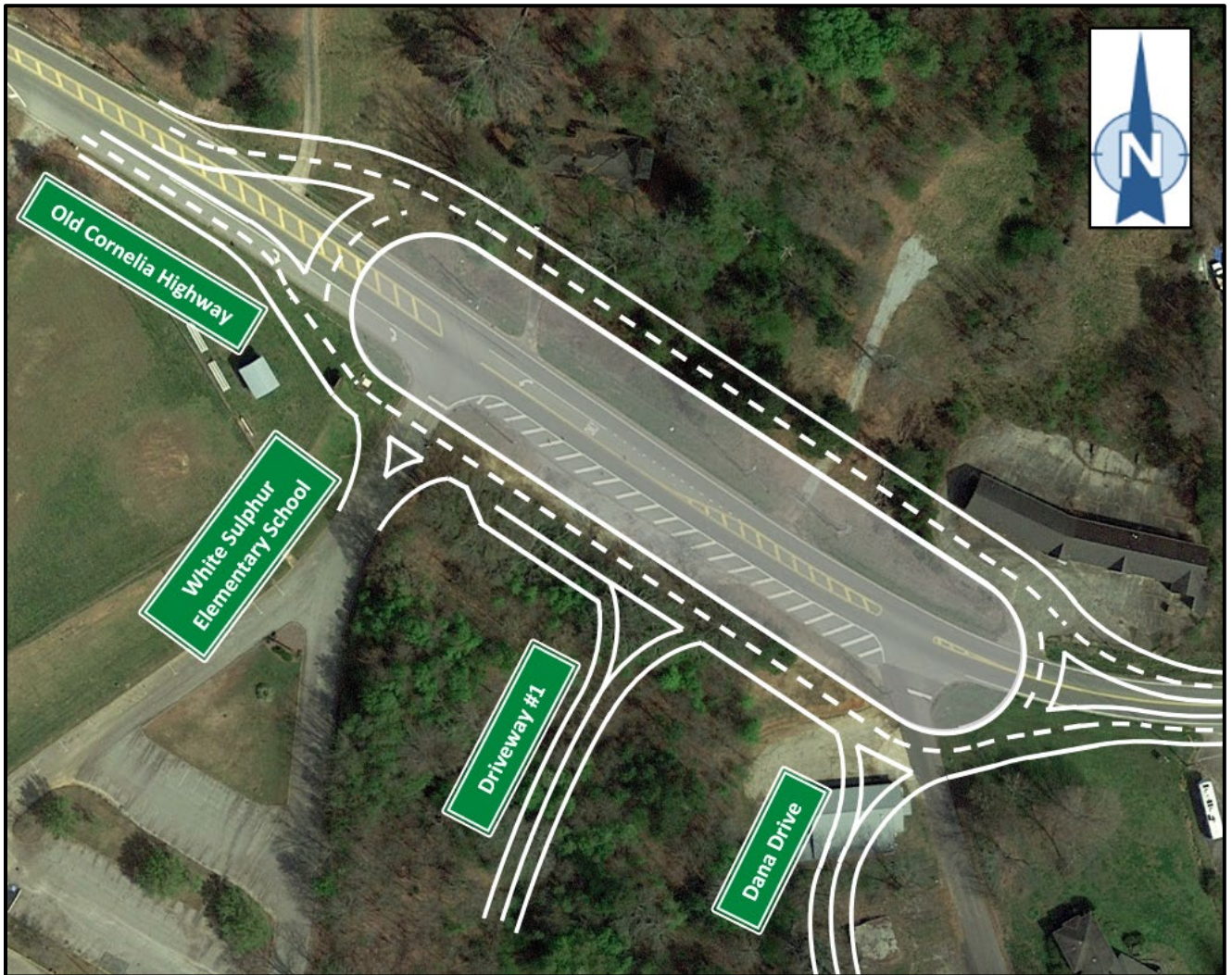


FIGURE 29 : ALTERNATIVE C





## APPENDICES

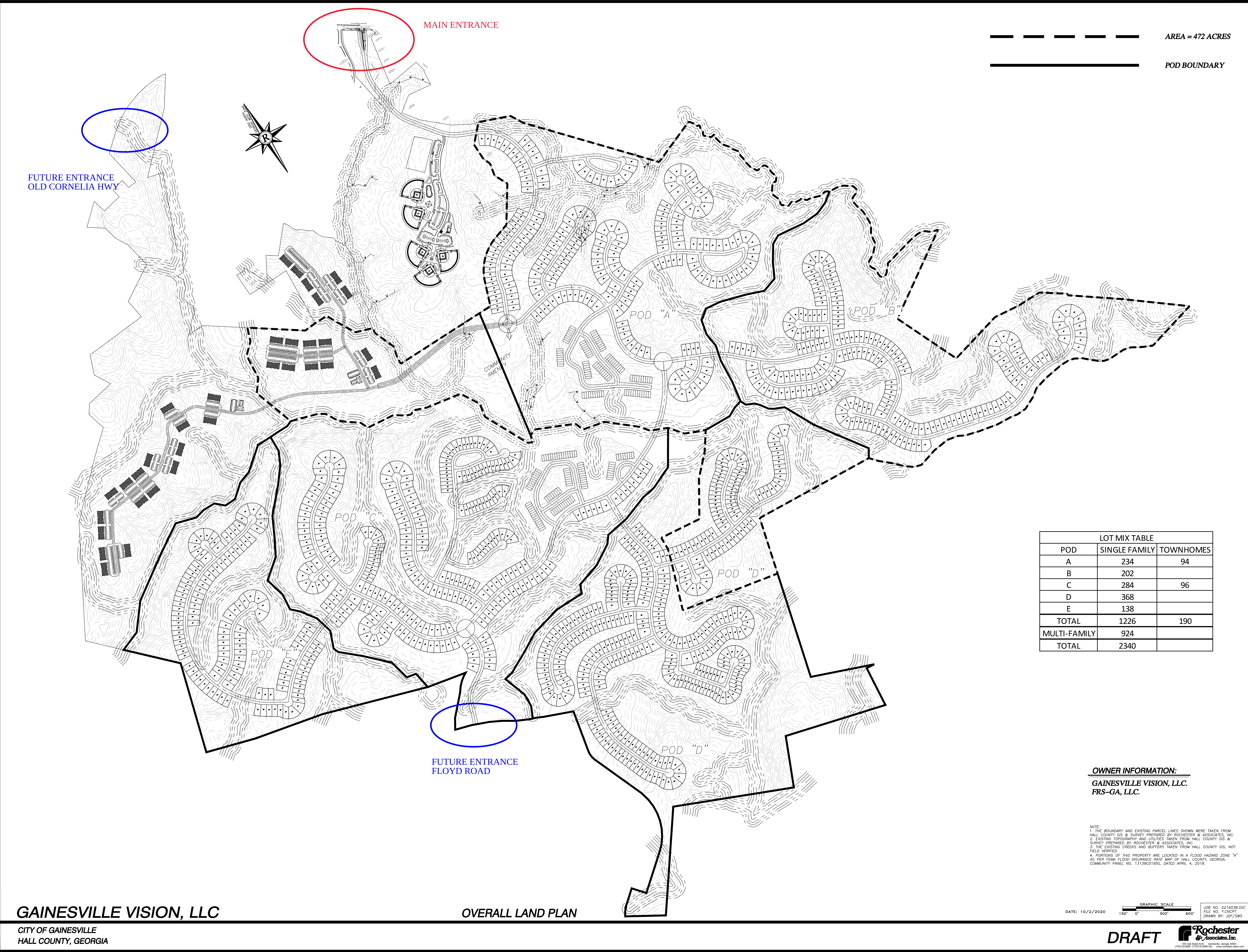
|                                                                       |   |
|-----------------------------------------------------------------------|---|
| SITE PLAN .....                                                       | A |
| TURNING MOVEMENT COUNT DATA .....                                     | B |
| ATR DATA .....                                                        | C |
| GDOT COUNT STATION DATA .....                                         | D |
| CRASH DATA.....                                                       | E |
| HALL COUNTY STRATEGIC PLAN .....                                      | F |
| ARC POPULATION FORECAST .....                                         | G |
| TRIP GENERATION DATA.....                                             | H |
| CAPACITY ANALYSIS REPORTS, EXITING CONDITIONS .....                   | I |
| CAPACITY ANALYSIS REPORTS, NO-BUILD CONDITIONS.....                   | J |
| CAPACITY ANALYSIS REPORTS, BUILD CONDITIONS .....                     | K |
| CAPACITY ANALYSIS REPORTS, WIDENING CONDITIONS .....                  | L |
| CAPACITY ANALYSIS REPORTS, DRIVEWAY #1 IMPROVEMENTS .....             | M |
| CAPACITY ANALYSIS REPORTS, DRIVEWAY #1 CONSOLIDATED IMPROVEMENTS..... | N |

## APPENDIX A

### SITE PLAN







MAIN ENTRANCE

FUTURE ENTRANCE  
OLD CORNELIA HWY

FUTURE ENTRANCE  
FLOYD ROAD

AREA = 472 ACRES

POD BOUNDARY

| LOT MIX TABLE |               |           |
|---------------|---------------|-----------|
| POD           | SINGLE FAMILY | TOWNHOMES |
| A             | 234           | 94        |
| B             | 202           |           |
| C             | 284           | 96        |
| D             | 368           |           |
| E             | 138           |           |
| TOTAL         | 1226          | 190       |
| MULTI-FAMILY  | 924           |           |
| TOTAL         | 2340          |           |

**OWNER INFORMATION:**  
**GAINESVILLE VISION, LLC.**  
**FRS-GA, LLC.**

NOTE:  
 1. THE BOUNDARY AND EXISTING PARCEL LINES SHOWN WERE TAKEN FROM HALL COUNTY GIS & SURVEY PREPARED BY ROCHESTER & ASSOCIATES, INC.  
 2. EXISTING TOPOGRAPHY AND UTILITIES TAKEN FROM HALL COUNTY GIS & SURVEY PREPARED BY ROCHESTER & ASSOCIATES, INC.  
 3. THE EXISTING CREEKS AND BUFFERS TAKEN FROM HALL COUNTY GIS, NOT FIELD VERIFIED.  
 4. PORTIONS OF THIS PROPERTY ARE LOCATED IN A FLOOD HAZARD ZONE "A" AS PER FEMA FLOOD INSURANCE RATE MAP OF HALL COUNTY, GEORGIA, COMMUNITY PANEL NO. 13139C01550, DATED APRIL 4, 2016.

GAINESVILLE VISION, LLC

CITY OF GAINESVILLE  
HALL COUNTY, GEORGIA

OVERALL LAND PLAN

DATE: 10/2/2020

GRAPHIC SCALE  
150' 0" 300' 600'

JOB NO. G216038.GVC  
FILE NO. \*CH01PT  
DRAWN BY: JDE/SWS

DRAFT

**Rochester**  
 & Associates, Inc.

102 Oak Street N.W. Gainesville, Georgia 32601  
 (770) 431-0000 (770) 734-0000 Fax (770) 431-0000



## APPENDIX B

### TURNING MOVEMENT COUNT DATA





ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

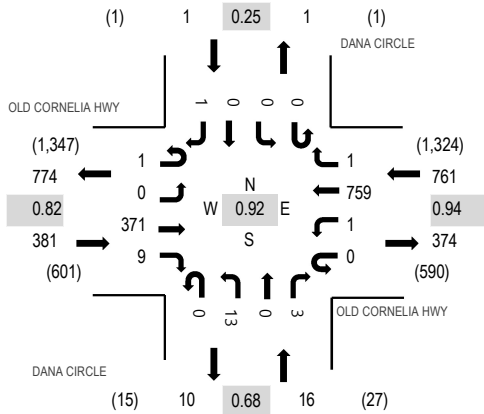
Location: #1 DANA CIRCLE & OLD CORNELIA HWY AM

Date: Wednesday, February 17, 2021

Peak Hour: 07:15 AM - 08:15 AM

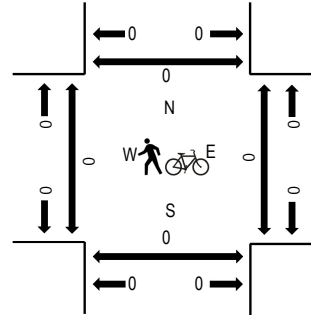
Peak 15-Minutes: 07:30 AM - 07:45 AM

### Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

### Peak Hour - Pedestrians/Bicycles in Crosswalk



### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | OLD CORNELIA HWY<br>Eastbound |      |      |       | OLD CORNELIA HWY<br>Westbound |      |      |       | DANA CIRCLE<br>Northbound |      |      |       | DANA CIRCLE<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|-------------------------------|------|------|-------|-------------------------------|------|------|-------|---------------------------|------|------|-------|---------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn                        | Left | Thru | Right | U-Turn                        | Left | Thru | Right | U-Turn                    | Left | Thru | Right | U-Turn                    | Left | Thru | Right |       |                 | West                 | East | South | North |
| 7:00 AM                | 0                             | 0    | 37   | 0     | 0                             | 1    | 192  | 0     | 0                         | 0    | 5    | 0     | 0                         | 0    | 0    | 0     | 235   | 1,145           | 0                    | 0    | 0     | 0     |
| 7:15 AM                | 0                             | 0    | 95   | 3     | 0                             | 0    | 184  | 0     | 0                         | 7    | 0    | 0     | 0                         | 0    | 0    | 0     | 289   | 1,159           | 0                    | 0    | 0     | 0     |
| 7:30 AM                | 0                             | 0    | 114  | 2     | 0                             | 0    | 195  | 0     | 0                         | 2    | 0    | 1     | 0                         | 0    | 0    | 0     | 314   | 1,090           | 0                    | 0    | 0     | 0     |
| 7:45 AM                | 0                             | 0    | 93   | 4     | 0                             | 1    | 204  | 1     | 0                         | 2    | 0    | 2     | 0                         | 0    | 0    | 0     | 307   | 956             | 0                    | 0    | 0     | 0     |
| 8:00 AM                | 1                             | 0    | 69   | 0     | 0                             | 0    | 176  | 0     | 0                         | 2    | 0    | 0     | 0                         | 0    | 0    | 1     | 249   | 808             | 0                    | 0    | 0     | 0     |
| 8:15 AM                | 0                             | 0    | 62   | 1     | 0                             | 0    | 155  | 0     | 0                         | 2    | 0    | 0     | 0                         | 0    | 0    | 0     | 220   |                 | 0                    | 0    | 0     | 0     |
| 8:30 AM                | 0                             | 0    | 56   | 2     | 0                             | 0    | 120  | 0     | 0                         | 2    | 0    | 0     | 0                         | 0    | 0    | 0     | 180   |                 | 0                    | 0    | 0     | 0     |
| 8:45 AM                | 0                             | 0    | 61   | 1     | 0                             | 0    | 95   | 0     | 0                         | 2    | 0    | 0     | 0                         | 0    | 0    | 0     | 159   |                 | 0                    | 0    | 0     | 0     |

### Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 2    | 0     | 0         | 0    | 1    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 3     |
| Lights             | 1         | 0    | 345  | 8     | 0         | 1    | 743  | 1     | 0          | 13   | 0    | 2     | 0          | 0    | 0    | 1     | 1,115 |
| Mediums            | 0         | 0    | 24   | 1     | 0         | 0    | 15   | 0     | 0          | 0    | 0    | 1     | 0          | 0    | 0    | 0     | 41    |
| Total              | 1         | 0    | 371  | 9     | 0         | 1    | 759  | 1     | 0          | 13   | 0    | 3     | 0          | 0    | 0    | 1     | 1,159 |



ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

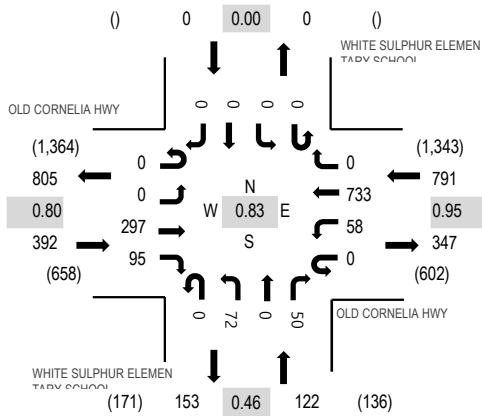
**Location:** #2 WHITE SULPHUR ELEMENTARY SCHOOL & OLD CORNELIA HWY AM

**Date:** Wednesday, February 17, 2021

**Peak Hour:** 07:00 AM - 08:00 AM

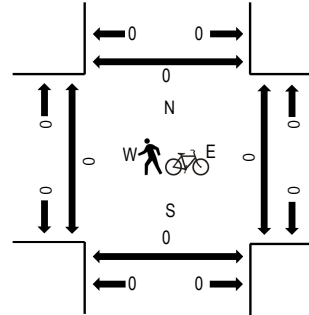
**Peak 15-Minutes:** 07:30 AM - 07:45 AM

### Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

### Peak Hour - Pedestrians/Bicycles in Crosswalk



### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | OLD CORNELIA HWY<br>Eastbound |      |      |       | OLD CORNELIA HWY<br>Westbound |      |      |       | WHITE SULPHUR<br>ELEMENTARY SCHOOL<br>Northbound |      |      |       | WHITE SULPHUR<br>ELEMENTARY SCHOOL<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|-------------------------------|------|------|-------|-------------------------------|------|------|-------|--------------------------------------------------|------|------|-------|--------------------------------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn                        | Left | Thru | Right | U-Turn                        | Left | Thru | Right | U-Turn                                           | Left | Thru | Right | U-Turn                                           | Left | Thru | Right |       |                 | West                 | East | South | North |
| 7:00 AM                | 0                             | 0    | 37   | 35    | 0                             | 21   | 172  | 0     | 0                                                | 0    | 0    | 0     | 0                                                | 0    | 0    | 0     | 265   | 1,305           | 0                    | 0    | 0     | 0     |
| 7:15 AM                | 0                             | 0    | 69   | 23    | 0                             | 13   | 176  | 0     | 0                                                | 20   | 0    | 20    | 0                                                | 0    | 0    | 0     | 321   | 1,304           | 0                    | 0    | 0     | 0     |
| 7:30 AM                | 0                             | 0    | 92   | 31    | 0                             | 22   | 179  | 0     | 0                                                | 46   | 0    | 24    | 0                                                | 0    | 0    | 0     | 394   | 1,204           | 0                    | 0    | 0     | 0     |
| 7:45 AM                | 0                             | 0    | 99   | 6     | 0                             | 2    | 206  | 0     | 0                                                | 6    | 0    | 6     | 0                                                | 0    | 0    | 0     | 325   | 997             | 0                    | 0    | 0     | 0     |
| 8:00 AM                | 0                             | 0    | 70   | 6     | 0                             | 2    | 179  | 0     | 0                                                | 5    | 0    | 2     | 0                                                | 0    | 0    | 0     | 264   | 832             | 0                    | 1    | 0     | 0     |
| 8:15 AM                | 0                             | 0    | 64   | 1     | 0                             | 0    | 156  | 0     | 0                                                | 0    | 0    | 0     | 0                                                | 0    | 0    | 0     | 221   |                 | 0                    | 0    | 1     | 0     |
| 8:30 AM                | 0                             | 0    | 58   | 3     | 0                             | 0    | 122  | 0     | 0                                                | 4    | 0    | 0     | 0                                                | 0    | 0    | 0     | 187   |                 | 0                    | 0    | 0     | 0     |
| 8:45 AM                | 0                             | 0    | 61   | 3     | 0                             | 3    | 90   | 0     | 0                                                | 3    | 0    | 0     | 0                                                | 0    | 0    | 0     | 160   |                 | 0                    | 0    | 0     | 0     |

### Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 2    | 0     | 0         | 0    | 1    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 3     |
| Lights             | 0         | 0    | 282  | 91    | 0         | 54   | 722  | 0     | 0          | 65   | 0    | 45    | 0          | 0    | 0    | 0     | 1,259 |
| Mediums            | 0         | 0    | 13   | 4     | 0         | 4    | 10   | 0     | 0          | 7    | 0    | 5     | 0          | 0    | 0    | 0     | 43    |
| Total              | 0         | 0    | 297  | 95    | 0         | 58   | 733  | 0     | 0          | 72   | 0    | 50    | 0          | 0    | 0    | 0     | 1,305 |





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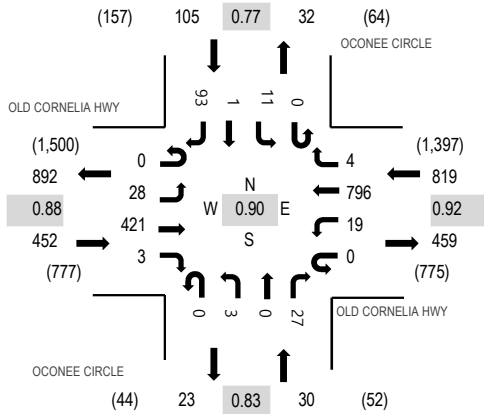
Location: #3 OCONEE CIRCLE & OLD CORNELIA HWY AM

Date: Wednesday, February 17, 2021

Peak Hour: 07:15 AM - 08:15 AM

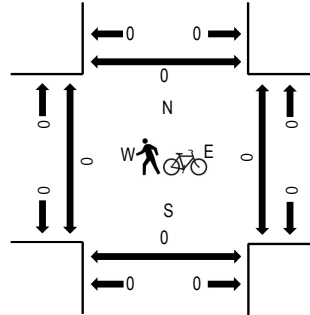
Peak 15-Minutes: 07:30 AM - 07:45 AM

### Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

### Peak Hour - Pedestrians/Bicycles in Crosswalk



### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | OLD CORNELIA HWY<br>Eastbound |      |      |       | OLD CORNELIA HWY<br>Westbound |      |      |       | OCONEE CIRCLE<br>Northbound |      |      |       | OCONEE CIRCLE<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|-------------------------------|------|------|-------|-------------------------------|------|------|-------|-----------------------------|------|------|-------|-----------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn                        | Left | Thru | Right | U-Turn                        | Left | Thru | Right | U-Turn                      | Left | Thru | Right | U-Turn                      | Left | Thru | Right |       |                 | West                 | East | South | North |
| 7:00 AM                | 0                             | 4    | 87   | 0     | 0                             | 6    | 159  | 0     | 0                           | 0    | 1    | 3     | 0                           | 0    | 0    | 12    | 272   | 1,364           | 0                    | 0    | 0     | 0     |
| 7:15 AM                | 0                             | 5    | 106  | 0     | 0                             | 6    | 182  | 0     | 0                           | 1    | 0    | 5     | 0                           | 6    | 0    | 28    | 339   | 1,406           | 0                    | 0    | 0     | 0     |
| 7:30 AM                | 0                             | 9    | 119  | 0     | 0                             | 4    | 216  | 3     | 0                           | 1    | 0    | 9     | 0                           | 4    | 1    | 24    | 390   | 1,332           | 0                    | 0    | 0     | 0     |
| 7:45 AM                | 0                             | 4    | 102  | 2     | 0                             | 1    | 219  | 1     | 0                           | 1    | 0    | 8     | 0                           | 1    | 0    | 24    | 363   | 1,172           | 0                    | 0    | 0     | 0     |
| 8:00 AM                | 0                             | 10   | 94   | 1     | 0                             | 8    | 179  | 0     | 0                           | 0    | 0    | 5     | 0                           | 0    | 0    | 17    | 314   | 1,019           | 0                    | 0    | 0     | 0     |
| 8:15 AM                | 0                             | 11   | 67   | 2     | 0                             | 2    | 163  | 2     | 0                           | 1    | 1    | 7     | 0                           | 2    | 0    | 7     | 265   |                 | 0                    | 0    | 0     | 0     |
| 8:30 AM                | 0                             | 7    | 72   | 0     | 0                             | 2    | 134  | 0     | 0                           | 1    | 0    | 0     | 0                           | 1    | 1    | 12    | 230   |                 | 0                    | 0    | 0     | 0     |
| 8:45 AM                | 0                             | 5    | 69   | 1     | 0                             | 5    | 105  | 0     | 0                           | 1    | 1    | 6     | 0                           | 2    | 2    | 13    | 210   |                 | 0                    | 0    | 0     | 0     |

### Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 4    | 0     | 0         | 0    | 2    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 6     |
| Lights             | 0         | 28   | 401  | 3     | 0         | 18   | 777  | 4     | 0          | 3    | 0    | 27    | 0          | 11   | 1    | 93    | 1,366 |
| Mediums            | 0         | 0    | 16   | 0     | 0         | 1    | 17   | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 34    |
| Total              | 0         | 28   | 421  | 3     | 0         | 19   | 796  | 4     | 0          | 3    | 0    | 27    | 0          | 11   | 1    | 93    | 1,406 |





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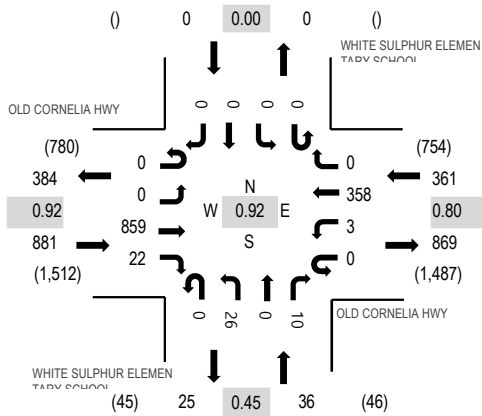
**Location:** #2 WHITE SULPHUR ELEMENTARY SCHOOL & OLD CORNELIA HWY PM

**Date:** Wednesday, February 17, 2021

**Peak Hour:** 04:45 PM - 05:45 PM

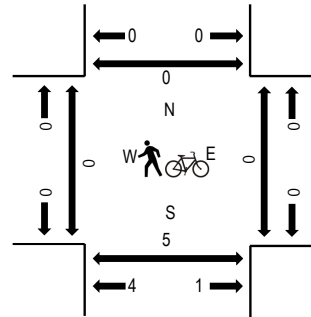
**Peak 15-Minutes:** 05:15 PM - 05:30 PM

### Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

### Peak Hour - Pedestrians/Bicycles in Crosswalk



### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | OLD CORNELIA HWY Eastbound |      |      |       | OLD CORNELIA HWY Westbound |      |      |       | WHITE SULPHUR ELEMENTARY SCHOOL Northbound |      |      |       | WHITE SULPHUR ELEMENTARY SCHOOL Southbound |      |      |       | Total | Rolling Hour | Pedestrian Crossings |      |       |       |
|------------------------|----------------------------|------|------|-------|----------------------------|------|------|-------|--------------------------------------------|------|------|-------|--------------------------------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
|                        | U-Turn                     | Left | Thru | Right | U-Turn                     | Left | Thru | Right | U-Turn                                     | Left | Thru | Right | U-Turn                                     | Left | Thru | Right |       |              | West                 | East | South | North |
| 4:30 PM                | 0                          | 0    | 181  | 8     | 0                          | 5    | 85   | 0     | 0                                          | 0    | 2    | 0     | 0                                          | 0    | 0    | 0     | 281   | 1,272        | 0                    | 0    | 0     | 0     |
| 4:45 PM                | 0                          | 0    | 177  | 12    | 0                          | 3    | 88   | 0     | 0                                          | 14   | 0    | 6     | 0                                          | 0    | 0    | 0     | 300   | 1,278        | 0                    | 0    | 0     | 0     |
| 5:00 PM                | 0                          | 0    | 235  | 4     | 0                          | 0    | 98   | 0     | 0                                          | 5    | 0    | 1     | 0                                          | 0    | 0    | 0     | 343   | 1,260        | 0                    | 0    | 0     | 0     |
| 5:15 PM                | 0                          | 0    | 230  | 2     | 0                          | 0    | 111  | 0     | 0                                          | 4    | 0    | 1     | 0                                          | 0    | 0    | 0     | 348   | 1,190        | 0                    | 0    | 2     | 0     |
| 5:30 PM                | 0                          | 0    | 217  | 4     | 0                          | 0    | 61   | 0     | 0                                          | 3    | 0    | 2     | 0                                          | 0    | 0    | 0     | 287   | 1,040        | 0                    | 0    | 3     | 0     |
| 5:45 PM                | 0                          | 0    | 173  | 4     | 0                          | 2    | 99   | 0     | 0                                          | 4    | 0    | 0     | 0                                          | 0    | 0    | 0     | 282   |              | 0                    | 0    | 2     | 0     |
| 6:00 PM                | 0                          | 0    | 147  | 1     | 0                          | 0    | 124  | 0     | 0                                          | 1    | 0    | 0     | 0                                          | 0    | 0    | 0     | 273   |              | 0                    | 0    | 0     | 0     |
| 6:15 PM                | 0                          | 0    | 117  | 0     | 0                          | 0    | 78   | 0     | 0                                          | 3    | 0    | 0     | 0                                          | 0    | 0    | 0     | 198   |              | 0                    | 0    | 0     | 0     |

### Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0     |
| Lights             | 0         | 0    | 851  | 22    | 0         | 3    | 351  | 0     | 0          | 26   | 0    | 10    | 0          | 0    | 0    | 0     | 1,263 |
| Mediums            | 0         | 0    | 8    | 0     | 0         | 0    | 7    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 15    |
| Total              | 0         | 0    | 859  | 22    | 0         | 3    | 358  | 0     | 0          | 26   | 0    | 10    | 0          | 0    | 0    | 0     | 1,278 |





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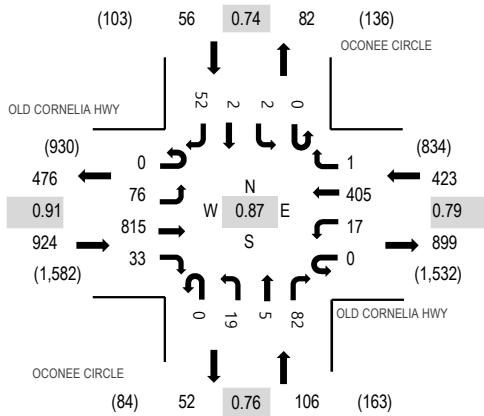
Location: #3 OCONEE CIRCLE & OLD CORNELIA HWY PM

Date: Wednesday, February 17, 2021

Peak Hour: 04:45 PM - 05:45 PM

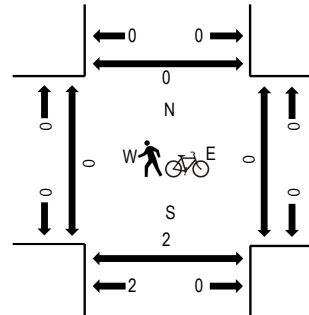
Peak 15-Minutes: 05:15 PM - 05:30 PM

### Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

### Peak Hour - Pedestrians/Bicycles in Crosswalk



### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | OLD CORNELIA HWY<br>Eastbound |      |      |       | OLD CORNELIA HWY<br>Westbound |      |      |       | OCONEE CIRCLE<br>Northbound |      |      |       | OCONEE CIRCLE<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|-------------------------------|------|------|-------|-------------------------------|------|------|-------|-----------------------------|------|------|-------|-----------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn                        | Left | Thru | Right | U-Turn                        | Left | Thru | Right | U-Turn                      | Left | Thru | Right | U-Turn                      | Left | Thru | Right |       |                 | West                 | East | South | North |
| 4:30 PM                | 0                             | 11   | 185  | 7     | 1                             | 4    | 90   | 0     | 0                           | 7    | 1    | 10    | 0                           | 2    | 0    | 10    | 328   | 1,490           | 0                    | 0    | 0     | 0     |
| 4:45 PM                | 0                             | 17   | 174  | 4     | 0                             | 4    | 102  | 0     | 0                           | 5    | 0    | 16    | 0                           | 0    | 2    | 9     | 333   | 1,509           | 0                    | 0    | 0     | 0     |
| 5:00 PM                | 0                             | 23   | 222  | 8     | 0                             | 1    | 99   | 1     | 0                           | 4    | 3    | 19    | 0                           | 0    | 0    | 15    | 395   | 1,484           | 0                    | 0    | 0     | 0     |
| 5:15 PM                | 0                             | 17   | 225  | 10    | 0                             | 7    | 133  | 0     | 0                           | 4    | 1    | 19    | 0                           | 1    | 0    | 17    | 434   | 1,395           | 0                    | 0    | 0     | 0     |
| 5:30 PM                | 0                             | 19   | 194  | 11    | 0                             | 5    | 71   | 0     | 0                           | 6    | 1    | 28    | 0                           | 1    | 0    | 11    | 347   | 1,192           | 0                    | 0    | 2     | 0     |
| 5:45 PM                | 0                             | 12   | 162  | 2     | 0                             | 1    | 104  | 1     | 0                           | 5    | 0    | 12    | 0                           | 0    | 0    | 9     | 308   |                 | 0                    | 0    | 0     | 0     |
| 6:00 PM                | 0                             | 12   | 136  | 5     | 0                             | 7    | 111  | 0     | 0                           | 4    | 1    | 10    | 0                           | 3    | 0    | 17    | 306   |                 | 0                    | 0    | 0     | 0     |
| 6:15 PM                | 0                             | 16   | 106  | 4     | 0                             | 2    | 90   | 0     | 0                           | 1    | 0    | 6     | 0                           | 0    | 0    | 6     | 231   |                 | 0                    | 0    | 0     | 0     |

### Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 1    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 1     |
| Lights             | 0         | 75   | 804  | 33    | 0         | 17   | 399  | 1     | 0          | 19   | 5    | 82    | 0          | 2    | 2    | 52    | 1,491 |
| Mediums            | 0         | 1    | 10   | 0     | 0         | 0    | 6    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 17    |
| Total              | 0         | 76   | 815  | 33    | 0         | 17   | 405  | 1     | 0          | 19   | 5    | 82    | 0          | 2    | 2    | 52    | 1,509 |

## APPENDIX C

ATR DATA



# All Traffic Data Services

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Page 1

Site Code: 1

Station ID: 1

OLD CORNEILIA HWY WEST OF OCONEE CIRCLE

Latitude: 0' 0.0000 Undefined

Longitude: 0' 0.0000 Undefined

EB

| Start Time | 15 | 1620 | 2125 | 2630 | 3135 | 3640 | 4145 | 4650 | 5155 | 5660 | 6165 | 6670 | 7175 | 76999 | Total |
|------------|----|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|
| 02/17/21   | 0  | 0    | 0    | 0    | 1    | 1    | 5    | 2    | 0    | 0    | 0    | 0    | 0    | 0     | 9     |
| 00:15      | 0  | 0    | 0    | 0    | 0    | 0    | 3    | 1    | 2    | 0    | 0    | 0    | 0    | 0     | 6     |
| 00:30      | 0  | 0    | 0    | 1    | 0    | 0    | 3    | 3    | 0    | 0    | 0    | 0    | 0    | 0     | 7     |
| 00:45      | 0  | 0    | 0    | 0    | 0    | 3    | 2    | 1    | 0    | 0    | 0    | 0    | 0    | 0     | 6     |
|            | 0  | 0    | 0    | 1    | 1    | 4    | 13   | 7    | 2    | 0    | 0    | 0    | 0    | 0     | 28    |
| 01:00      | 0  | 0    | 0    | 0    | 1    | 1    | 3    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 5     |
| 01:15      | 0  | 0    | 0    | 1    | 0    | 1    | 3    | 4    | 1    | 1    | 0    | 0    | 0    | 0     | 11    |
| 01:30      | 0  | 0    | 0    | 0    | 1    | 0    | 3    | 1    | 0    | 0    | 0    | 0    | 0    | 0     | 5     |
| 01:45      | 0  | 0    | 0    | 0    | 0    | 0    | 4    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 4     |
|            | 0  | 0    | 0    | 1    | 2    | 2    | 13   | 5    | 1    | 1    | 0    | 0    | 0    | 0     | 25    |
| 02:00      | 0  | 0    | 0    | 1    | 1    | 1    | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 4     |
| 02:15      | 0  | 0    | 0    | 0    | 1    | 1    | 3    | 1    | 0    | 0    | 0    | 0    | 0    | 0     | 6     |
| 02:30      | 0  | 0    | 0    | 1    | 0    | 0    | 3    | 1    | 1    | 0    | 0    | 0    | 0    | 0     | 6     |
| 02:45      | 0  | 0    | 0    | 0    | 1    | 2    | 2    | 1    | 1    | 0    | 0    | 0    | 0    | 0     | 7     |
|            | 0  | 0    | 0    | 2    | 3    | 4    | 9    | 3    | 2    | 0    | 0    | 0    | 0    | 0     | 23    |
| 03:00      | 0  | 0    | 0    | 0    | 1    | 1    | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 3     |
| 03:15      | 0  | 0    | 0    | 0    | 0    | 2    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 2     |
| 03:30      | 0  | 0    | 0    | 0    | 0    | 1    | 0    | 3    | 1    | 0    | 0    | 0    | 0    | 0     | 5     |
| 03:45      | 0  | 0    | 0    | 0    | 0    | 2    | 2    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 4     |
|            | 0  | 0    | 0    | 0    | 1    | 6    | 3    | 3    | 1    | 0    | 0    | 0    | 0    | 0     | 14    |
| 04:00      | 0  | 0    | 0    | 0    | 0    | 4    | 0    | 1    | 0    | 0    | 0    | 0    | 0    | 0     | 5     |
| 04:15      | 0  | 0    | 0    | 0    | 0    | 0    | 2    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 2     |
| 04:30      | 1  | 1    | 0    | 0    | 1    | 1    | 1    | 1    | 2    | 0    | 0    | 0    | 0    | 0     | 8     |
| 04:45      | 0  | 0    | 0    | 1    | 0    | 2    | 4    | 0    | 1    | 0    | 0    | 0    | 0    | 0     | 8     |
|            | 1  | 1    | 0    | 1    | 1    | 7    | 7    | 2    | 3    | 0    | 0    | 0    | 0    | 0     | 23    |
| 05:00      | 0  | 0    | 0    | 0    | 2    | 2    | 12   | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 16    |
| 05:15      | 0  | 0    | 0    | 0    | 2    | 4    | 5    | 2    | 0    | 0    | 0    | 0    | 0    | 0     | 13    |
| 05:30      | 0  | 0    | 0    | 0    | 0    | 5    | 6    | 9    | 1    | 0    | 0    | 0    | 0    | 0     | 21    |
| 05:45      | 0  | 0    | 0    | 1    | 3    | 4    | 11   | 4    | 0    | 0    | 0    | 0    | 0    | 0     | 23    |
|            | 0  | 0    | 0    | 1    | 7    | 15   | 34   | 15   | 1    | 0    | 0    | 0    | 0    | 0     | 73    |
| 06:00      | 1  | 0    | 0    | 0    | 1    | 8    | 15   | 5    | 3    | 0    | 0    | 0    | 0    | 0     | 33    |
| 06:15      | 0  | 0    | 0    | 0    | 2    | 10   | 16   | 9    | 2    | 0    | 0    | 0    | 0    | 0     | 39    |
| 06:30      | 1  | 0    | 0    | 0    | 2    | 5    | 18   | 20   | 3    | 0    | 0    | 0    | 0    | 0     | 49    |
| 06:45      | 2  | 0    | 0    | 0    | 3    | 24   | 35   | 17   | 2    | 0    | 0    | 0    | 0    | 0     | 83    |
|            | 4  | 0    | 0    | 0    | 8    | 47   | 84   | 51   | 10   | 0    | 0    | 0    | 0    | 0     | 204   |
| 07:00      | 0  | 0    | 0    | 0    | 2    | 16   | 39   | 19   | 3    | 0    | 0    | 0    | 0    | 0     | 79    |
| 07:15      | 1  | 0    | 0    | 1    | 3    | 20   | 57   | 24   | 0    | 1    | 0    | 0    | 0    | 0     | 107   |
| 07:30      | 0  | 0    | 0    | 0    | 2    | 20   | 60   | 25   | 2    | 0    | 0    | 0    | 0    | 0     | 109   |
| 07:45      | 0  | 0    | 2    | 0    | 0    | 23   | 43   | 20   | 4    | 1    | 0    | 0    | 0    | 0     | 93    |
|            | 1  | 0    | 2    | 1    | 7    | 79   | 199  | 88   | 9    | 2    | 0    | 0    | 0    | 0     | 388   |
| 08:00      | 1  | 0    | 0    | 0    | 3    | 17   | 34   | 23   | 5    | 0    | 0    | 0    | 0    | 0     | 83    |
| 08:15      | 0  | 0    | 0    | 0    | 2    | 12   | 47   | 13   | 1    | 0    | 0    | 0    | 0    | 0     | 75    |
| 08:30      | 0  | 0    | 0    | 1    | 2    | 16   | 36   | 13   | 0    | 1    | 0    | 0    | 0    | 0     | 69    |
| 08:45      | 1  | 0    | 1    | 0    | 4    | 17   | 28   | 13   | 2    | 1    | 0    | 0    | 0    | 0     | 67    |
|            | 2  | 0    | 1    | 1    | 11   | 62   | 145  | 62   | 8    | 2    | 0    | 0    | 0    | 0     | 294   |
| 09:00      | 0  | 0    | 1    | 0    | 4    | 23   | 19   | 16   | 3    | 0    | 0    | 0    | 0    | 0     | 66    |
| 09:15      | 0  | 0    | 2    | 0    | 2    | 12   | 26   | 5    | 2    | 1    | 0    | 0    | 0    | 0     | 50    |
| 09:30      | 1  | 1    | 0    | 0    | 3    | 12   | 29   | 16   | 1    | 0    | 0    | 0    | 0    | 0     | 63    |
| 09:45      | 2  | 1    | 0    | 0    | 0    | 17   | 43   | 11   | 1    | 0    | 0    | 0    | 0    | 0     | 75    |
|            | 3  | 2    | 3    | 0    | 9    | 64   | 117  | 48   | 7    | 1    | 0    | 0    | 0    | 0     | 254   |
| 10:00      | 0  | 0    | 0    | 0    | 2    | 22   | 31   | 24   | 2    | 0    | 0    | 0    | 0    | 0     | 81    |
| 10:15      | 0  | 0    | 0    | 1    | 1    | 18   | 21   | 19   | 0    | 0    | 0    | 0    | 0    | 0     | 60    |
| 10:30      | 1  | 1    | 1    | 0    | 3    | 19   | 36   | 18   | 4    | 0    | 0    | 0    | 0    | 0     | 83    |
| 10:45      | 0  | 1    | 0    | 0    | 2    | 17   | 39   | 15   | 0    | 0    | 0    | 0    | 0    | 0     | 74    |
|            | 1  | 2    | 1    | 1    | 8    | 76   | 127  | 76   | 6    | 0    | 0    | 0    | 0    | 0     | 298   |
| 11:00      | 0  | 0    | 0    | 1    | 1    | 12   | 47   | 11   | 1    | 0    | 0    | 0    | 0    | 0     | 73    |
| 11:15      | 0  | 0    | 0    | 0    | 4    | 23   | 42   | 17   | 1    | 0    | 0    | 0    | 0    | 0     | 87    |
| 11:30      | 0  | 1    | 1    | 2    | 3    | 22   | 40   | 11   | 0    | 0    | 0    | 0    | 0    | 0     | 80    |
| 11:45      | 1  | 1    | 0    | 1    | 5    | 29   | 45   | 15   | 0    | 0    | 0    | 0    | 0    | 0     | 97    |
|            | 1  | 2    | 1    | 4    | 13   | 86   | 174  | 54   | 2    | 0    | 0    | 0    | 0    | 0     | 337   |
| Total      | 13 | 7    | 8    | 13   | 71   | 452  | 925  | 414  | 52   | 6    | 0    | 0    | 0    | 0     | 1961  |



# All Traffic Data Services

[www.alltrafficdata.net](http://www.alltrafficdata.net)

Page 2

Site Code: 1

Station ID: 1

OLD CORNEILIA HWY WEST OF OCONEE CIRCLE

Latitude: 0' 0.0000 Undefined

Longitude: 0' 0.0000 Undefined

EB

| Start Time  | 15 | 16 | 21 | 26 | 31  | 36   | 41   | 46   | 51  | 56 | 61 | 66 | 71 | 76  | Total |
|-------------|----|----|----|----|-----|------|------|------|-----|----|----|----|----|-----|-------|
|             | 15 | 20 | 25 | 30 | 35  | 40   | 45   | 50   | 55  | 60 | 65 | 70 | 75 | 999 |       |
| 12 PM       | 1  | 0  | 2  | 1  | 10  | 25   | 45   | 23   | 3   | 0  | 0  | 0  | 0  | 0   | 110   |
| 12:15       | 0  | 0  | 0  | 2  | 7   | 32   | 56   | 12   | 2   | 0  | 0  | 0  | 0  | 0   | 111   |
| 12:30       | 1  | 0  | 0  | 0  | 6   | 22   | 45   | 17   | 1   | 0  | 0  | 0  | 0  | 0   | 92    |
| 12:45       | 0  | 0  | 0  | 1  | 4   | 30   | 39   | 15   | 0   | 0  | 0  | 0  | 0  | 0   | 89    |
| 13:00       | 2  | 0  | 2  | 4  | 27  | 109  | 185  | 67   | 6   | 0  | 0  | 0  | 0  | 0   | 402   |
| 13:15       | 0  | 0  | 0  | 2  | 12  | 26   | 49   | 16   | 0   | 0  | 0  | 0  | 0  | 0   | 105   |
| 13:30       | 0  | 0  | 2  | 0  | 4   | 25   | 42   | 20   | 1   | 0  | 0  | 0  | 0  | 0   | 94    |
| 13:45       | 0  | 0  | 1  | 1  | 0   | 23   | 47   | 18   | 4   | 0  | 0  | 0  | 0  | 0   | 94    |
| 14:00       | 0  | 0  | 0  | 0  | 5   | 19   | 45   | 18   | 5   | 0  | 0  | 0  | 0  | 0   | 92    |
| 14:15       | 0  | 0  | 3  | 3  | 21  | 93   | 183  | 72   | 10  | 0  | 0  | 0  | 0  | 0   | 385   |
| 14:30       | 0  | 2  | 2  | 0  | 6   | 23   | 41   | 26   | 1   | 0  | 0  | 0  | 0  | 0   | 101   |
| 14:45       | 0  | 0  | 1  | 1  | 2   | 31   | 45   | 20   | 1   | 0  | 0  | 0  | 0  | 0   | 101   |
| 15:00       | 1  | 0  | 0  | 0  | 0   | 19   | 45   | 24   | 3   | 0  | 0  | 0  | 0  | 0   | 92    |
| 15:15       | 0  | 0  | 0  | 2  | 4   | 24   | 59   | 27   | 5   | 0  | 0  | 0  | 0  | 0   | 121   |
| 15:30       | 1  | 2  | 3  | 3  | 12  | 97   | 190  | 97   | 10  | 0  | 0  | 0  | 0  | 0   | 415   |
| 15:45       | 13 | 0  | 2  | 4  | 14  | 15   | 55   | 17   | 1   | 0  | 0  | 0  | 0  | 0   | 121   |
| 16:00       | 4  | 2  | 0  | 10 | 10  | 30   | 51   | 14   | 1   | 0  | 0  | 0  | 0  | 0   | 122   |
| 16:15       | 2  | 1  | 0  | 3  | 13  | 20   | 61   | 22   | 2   | 0  | 0  | 0  | 0  | 0   | 124   |
| 16:30       | 0  | 0  | 0  | 2  | 13  | 44   | 50   | 21   | 2   | 0  | 0  | 0  | 0  | 0   | 132   |
| 16:45       | 19 | 3  | 2  | 19 | 50  | 109  | 217  | 74   | 6   | 0  | 0  | 0  | 0  | 0   | 499   |
| 17:00       | 1  | 0  | 1  | 0  | 6   | 30   | 78   | 20   | 6   | 1  | 0  | 0  | 0  | 0   | 143   |
| 17:15       | 4  | 0  | 0  | 0  | 8   | 57   | 69   | 29   | 3   | 0  | 0  | 0  | 0  | 0   | 170   |
| 17:30       | 3  | 0  | 0  | 2  | 8   | 52   | 77   | 31   | 3   | 0  | 0  | 0  | 0  | 0   | 176   |
| 17:45       | 1  | 0  | 1  | 1  | 9   | 51   | 75   | 42   | 3   | 0  | 0  | 0  | 0  | 0   | 183   |
| 18:00       | 9  | 0  | 2  | 3  | 31  | 190  | 299  | 122  | 15  | 1  | 0  | 0  | 0  | 0   | 672   |
| 18:15       | 3  | 0  | 0  | 1  | 7   | 58   | 89   | 39   | 8   | 0  | 0  | 0  | 0  | 0   | 205   |
| 18:30       | 3  | 0  | 0  | 1  | 0   | 56   | 114  | 36   | 1   | 0  | 0  | 0  | 0  | 0   | 211   |
| 18:45       | 0  | 0  | 0  | 1  | 9   | 49   | 87   | 31   | 4   | 0  | 0  | 0  | 0  | 0   | 181   |
| 19:00       | 1  | 0  | 0  | 1  | 8   | 37   | 70   | 29   | 7   | 0  | 0  | 0  | 0  | 0   | 153   |
| 19:15       | 7  | 0  | 0  | 4  | 24  | 200  | 360  | 135  | 20  | 0  | 0  | 0  | 0  | 0   | 750   |
| 19:30       | 1  | 0  | 0  | 0  | 7   | 25   | 84   | 21   | 0   | 0  | 0  | 0  | 0  | 0   | 138   |
| 19:45       | 1  | 0  | 0  | 2  | 6   | 35   | 52   | 10   | 0   | 0  | 0  | 0  | 0  | 0   | 106   |
| 20:00       | 1  | 1  | 3  | 1  | 12  | 39   | 50   | 21   | 1   | 0  | 0  | 0  | 0  | 0   | 129   |
| 20:15       | 1  | 1  | 0  | 1  | 2   | 31   | 42   | 18   | 2   | 1  | 0  | 0  | 0  | 0   | 99    |
| 20:30       | 4  | 2  | 3  | 4  | 27  | 130  | 228  | 70   | 3   | 1  | 0  | 0  | 0  | 0   | 472   |
| 20:45       | 1  | 0  | 1  | 0  | 3   | 34   | 43   | 14   | 2   | 0  | 0  | 0  | 0  | 0   | 98    |
| 21:00       | 0  | 0  | 1  | 0  | 3   | 29   | 46   | 20   | 0   | 0  | 0  | 0  | 0  | 0   | 99    |
| 21:15       | 1  | 0  | 0  | 1  | 3   | 16   | 38   | 12   | 0   | 0  | 0  | 0  | 0  | 0   | 71    |
| 21:30       | 0  | 0  | 0  | 0  | 6   | 20   | 42   | 11   | 2   | 1  | 0  | 0  | 0  | 0   | 82    |
| 21:45       | 2  | 0  | 2  | 1  | 15  | 99   | 169  | 57   | 4   | 1  | 0  | 0  | 0  | 0   | 350   |
| 22:00       | 0  | 0  | 0  | 1  | 6   | 16   | 34   | 10   | 2   | 0  | 0  | 0  | 0  | 0   | 69    |
| 22:15       | 0  | 0  | 0  | 0  | 3   | 17   | 40   | 12   | 2   | 0  | 0  | 0  | 0  | 0   | 74    |
| 22:30       | 2  | 0  | 1  | 1  | 3   | 23   | 21   | 10   | 1   | 0  | 0  | 0  | 0  | 0   | 62    |
| 22:45       | 1  | 0  | 1  | 0  | 1   | 10   | 31   | 7    | 1   | 0  | 1  | 0  | 0  | 0   | 53    |
| 23:00       | 3  | 0  | 2  | 2  | 13  | 66   | 126  | 39   | 6   | 0  | 1  | 0  | 0  | 0   | 258   |
| 23:15       | 0  | 0  | 0  | 0  | 4   | 10   | 24   | 5    | 2   | 0  | 0  | 0  | 0  | 0   | 45    |
| 23:30       | 0  | 0  | 0  | 0  | 2   | 13   | 13   | 6    | 0   | 0  | 0  | 0  | 0  | 0   | 34    |
| 23:45       | 0  | 0  | 0  | 0  | 2   | 18   | 15   | 6    | 0   | 0  | 0  | 0  | 0  | 0   | 41    |
| 24:00       | 0  | 0  | 0  | 0  | 1   | 11   | 13   | 5    | 1   | 0  | 0  | 0  | 0  | 0   | 31    |
| 24:15       | 0  | 0  | 0  | 0  | 9   | 52   | 65   | 22   | 3   | 0  | 0  | 0  | 0  | 0   | 151   |
| 24:30       | 0  | 0  | 1  | 0  | 1   | 6    | 11   | 2    | 0   | 0  | 0  | 0  | 0  | 0   | 21    |
| 24:45       | 0  | 0  | 0  | 1  | 2   | 10   | 7    | 5    | 1   | 0  | 0  | 0  | 0  | 0   | 26    |
| 25:00       | 0  | 0  | 0  | 0  | 1   | 8    | 9    | 3    | 0   | 0  | 0  | 0  | 0  | 0   | 21    |
| 25:15       | 0  | 0  | 0  | 1  | 1   | 4    | 9    | 2    | 0   | 0  | 0  | 0  | 0  | 0   | 17    |
| 25:30       | 0  | 0  | 1  | 2  | 5   | 28   | 36   | 12   | 1   | 0  | 0  | 0  | 0  | 0   | 85    |
| 25:45       | 0  | 0  | 0  | 0  | 1   | 6    | 15   | 2    | 0   | 0  | 0  | 0  | 0  | 0   | 24    |
| 26:00       | 1  | 0  | 0  | 0  | 2   | 9    | 7    | 1    | 0   | 0  | 0  | 0  | 0  | 0   | 20    |
| 26:15       | 0  | 0  | 0  | 0  | 0   | 4    | 9    | 4    | 0   | 0  | 0  | 0  | 0  | 0   | 17    |
| 26:30       | 0  | 0  | 0  | 1  | 0   | 5    | 7    | 1    | 1   | 0  | 0  | 0  | 0  | 0   | 15    |
| 26:45       | 1  | 0  | 0  | 1  | 3   | 24   | 38   | 8    | 1   | 0  | 0  | 0  | 0  | 0   | 76    |
| Total       | 48 | 7  | 20 | 46 | 237 | 1197 | 2096 | 775  | 85  | 3  | 1  | 0  | 0  | 0   | 4515  |
| Grand Total | 61 | 14 | 28 | 59 | 308 | 1649 | 3021 | 1189 | 137 | 9  | 1  | 0  | 0  | 0   | 6476  |

15th Percentile : 36 MPH  
 50th Percentile : 41 MPH  
 85th Percentile : 46 MPH  
 95th Percentile : 49 MPH

Stats Mean Speed(Average) : 42 MPH  
 10 MPH Pace Speed : 36-45 MPH  
 Number in Pace : 4670

|                                |       |
|--------------------------------|-------|
| Percent in Pace :              | 72.1% |
| Number of Vehicles > 55 MPH :  | 10    |
| Percent of Vehicles > 55 MPH : | 0.2%  |

# All Traffic Data Services

[www.alltrafficdata.net](http://www.alltrafficdata.net)

Site Code: 1

Station ID: 1

OLD CORNEILIA HWY WEST OF OCONEE CIRCLE

Latitude: 0' 0.0000 Undefined

Longitude: 0' 0.0000 Undefined

| WB    | Start Time | 15 | 16 | 21 | 26 | 31  | 36   | 41   | 46  | 51 | 56 | 61 | 66 | 71 | 76  | Total |
|-------|------------|----|----|----|----|-----|------|------|-----|----|----|----|----|----|-----|-------|
|       |            | 15 | 20 | 25 | 30 | 35  | 40   | 45   | 50  | 55 | 60 | 65 | 70 | 75 | 999 |       |
|       | 02/17/21   | 0  | 0  | 0  | 0  | 0   | 1    | 2    | 0   | 0  | 0  | 0  | 0  | 0  | 0   | 3     |
|       | 00:15      | 0  | 0  | 0  | 0  | 0   | 4    | 2    | 2   | 0  | 0  | 0  | 0  | 0  | 0   | 8     |
|       | 00:30      | 0  | 0  | 0  | 1  | 0   | 0    | 2    | 1   | 1  | 0  | 0  | 0  | 0  | 0   | 5     |
|       | 00:45      | 0  | 0  | 0  | 0  | 1   | 0    | 0    | 0   | 0  | 0  | 0  | 0  | 0  | 0   | 1     |
|       | 01:00      | 0  | 0  | 0  | 1  | 1   | 5    | 6    | 3   | 1  | 0  | 0  | 0  | 0  | 0   | 17    |
|       | 01:15      | 0  | 0  | 0  | 0  | 0   | 0    | 2    | 0   | 0  | 0  | 0  | 0  | 0  | 0   | 2     |
|       | 01:30      | 0  | 0  | 0  | 0  | 0   | 1    | 1    | 2   | 0  | 0  | 0  | 0  | 0  | 0   | 4     |
|       | 01:45      | 0  | 0  | 0  | 0  | 1   | 1    | 0    | 1   | 0  | 0  | 0  | 0  | 0  | 0   | 3     |
|       | 02:00      | 0  | 0  | 0  | 0  | 0   | 0    | 0    | 1   | 0  | 0  | 0  | 0  | 0  | 0   | 1     |
|       | 02:15      | 0  | 0  | 0  | 0  | 1   | 2    | 3    | 4   | 0  | 0  | 0  | 0  | 0  | 0   | 10    |
|       | 02:30      | 0  | 0  | 0  | 0  | 0   | 2    | 0    | 0   | 0  | 0  | 0  | 0  | 0  | 0   | 2     |
|       | 02:45      | 0  | 0  | 0  | 0  | 0   | 1    | 1    | 2   | 0  | 0  | 0  | 0  | 0  | 0   | 4     |
|       | 03:00      | 0  | 0  | 0  | 0  | 0   | 3    | 3    | 3   | 1  | 0  | 0  | 0  | 0  | 0   | 10    |
|       | 03:15      | 0  | 0  | 0  | 0  | 0   | 2    | 2    | 0   | 0  | 0  | 0  | 0  | 0  | 0   | 4     |
|       | 03:30      | 0  | 0  | 0  | 0  | 1   | 2    | 5    | 1   | 0  | 0  | 0  | 0  | 0  | 0   | 9     |
|       | 03:45      | 0  | 0  | 0  | 0  | 0   | 1    | 2    | 1   | 0  | 0  | 0  | 0  | 0  | 0   | 4     |
|       | 04:00      | 0  | 0  | 0  | 0  | 0   | 2    | 5    | 0   | 0  | 0  | 0  | 0  | 0  | 0   | 7     |
|       | 04:15      | 0  | 0  | 0  | 0  | 1   | 7    | 14   | 2   | 0  | 0  | 0  | 0  | 0  | 0   | 24    |
|       | 04:30      | 0  | 0  | 0  | 0  | 1   | 1    | 6    | 1   | 0  | 0  | 0  | 0  | 0  | 0   | 9     |
|       | 04:45      | 0  | 0  | 0  | 0  | 0   | 3    | 3    | 4   | 2  | 0  | 0  | 0  | 0  | 0   | 12    |
|       | 05:00      | 0  | 1  | 0  | 0  | 2   | 3    | 9    | 6   | 0  | 0  | 0  | 0  | 0  | 0   | 21    |
|       | 05:15      | 0  | 0  | 0  | 0  | 1   | 5    | 10   | 6   | 2  | 0  | 0  | 0  | 0  | 0   | 24    |
|       | 05:30      | 0  | 1  | 0  | 0  | 4   | 12   | 28   | 17  | 4  | 0  | 0  | 0  | 0  | 0   | 66    |
|       | 05:45      | 1  | 0  | 0  | 0  | 0   | 3    | 10   | 7   | 3  | 1  | 0  | 0  | 0  | 0   | 25    |
|       | 06:00      | 0  | 0  | 0  | 0  | 1   | 8    | 19   | 12  | 0  | 0  | 0  | 0  | 0  | 0   | 40    |
|       | 06:15      | 0  | 0  | 0  | 0  | 0   | 10   | 22   | 22  | 4  | 0  | 0  | 0  | 0  | 0   | 58    |
|       | 06:30      | 0  | 0  | 0  | 0  | 2   | 8    | 28   | 19  | 3  | 1  | 0  | 0  | 0  | 0   | 61    |
|       | 06:45      | 1  | 0  | 0  | 0  | 3   | 29   | 79   | 60  | 10 | 2  | 0  | 0  | 0  | 0   | 184   |
|       | 07:00      | 0  | 1  | 0  | 0  | 0   | 18   | 37   | 14  | 0  | 0  | 0  | 0  | 0  | 0   | 70    |
|       | 07:15      | 0  | 0  | 0  | 0  | 6   | 43   | 64   | 12  | 3  | 0  | 0  | 0  | 0  | 0   | 128   |
|       | 07:30      | 0  | 0  | 0  | 0  | 1   | 26   | 77   | 16  | 1  | 0  | 0  | 0  | 0  | 0   | 121   |
|       | 07:45      | 0  | 0  | 0  | 0  | 3   | 41   | 83   | 16  | 1  | 0  | 0  | 0  | 0  | 0   | 144   |
|       | 08:00      | 0  | 1  | 0  | 0  | 10  | 128  | 261  | 58  | 5  | 0  | 0  | 0  | 0  | 0   | 463   |
|       | 08:15      | 0  | 0  | 0  | 0  | 7   | 56   | 77   | 20  | 1  | 0  | 0  | 0  | 0  | 0   | 161   |
|       | 08:30      | 0  | 1  | 0  | 0  | 11  | 73   | 86   | 23  | 3  | 0  | 0  | 0  | 0  | 0   | 197   |
|       | 08:45      | 0  | 2  | 0  | 0  | 7   | 78   | 115  | 18  | 1  | 0  | 0  | 0  | 0  | 0   | 221   |
|       | 09:00      | 0  | 1  | 0  | 2  | 9   | 72   | 114  | 24  | 3  | 0  | 0  | 0  | 0  | 0   | 225   |
|       | 09:15      | 0  | 4  | 0  | 2  | 34  | 279  | 392  | 85  | 8  | 0  | 0  | 0  | 0  | 0   | 804   |
|       | 09:30      | 0  | 0  | 1  | 0  | 2   | 57   | 99   | 28  | 2  | 0  | 0  | 0  | 0  | 0   | 189   |
|       | 09:45      | 0  | 0  | 0  | 0  | 4   | 53   | 92   | 11  | 0  | 0  | 0  | 0  | 0  | 0   | 160   |
|       | 10:00      | 0  | 0  | 0  | 0  | 3   | 52   | 67   | 19  | 5  | 0  | 0  | 0  | 0  | 0   | 146   |
|       | 10:15      | 0  | 0  | 0  | 0  | 8   | 33   | 50   | 17  | 2  | 0  | 0  | 0  | 0  | 0   | 110   |
|       | 10:30      | 0  | 0  | 1  | 0  | 17  | 195  | 308  | 75  | 9  | 0  | 0  | 0  | 0  | 0   | 605   |
|       | 10:45      | 1  | 1  | 0  | 5  | 1   | 32   | 35   | 16  | 0  | 0  | 0  | 0  | 0  | 0   | 91    |
|       | 11:00      | 0  | 1  | 0  | 0  | 5   | 31   | 54   | 9   | 3  | 0  | 0  | 0  | 0  | 0   | 103   |
|       | 11:15      | 1  | 2  | 0  | 0  | 6   | 50   | 40   | 9   | 0  | 0  | 0  | 0  | 0  | 0   | 108   |
|       | 11:30      | 0  | 2  | 0  | 3  | 10  | 37   | 44   | 10  | 0  | 0  | 0  | 0  | 0  | 0   | 106   |
|       | 11:45      | 2  | 6  | 0  | 8  | 22  | 150  | 173  | 44  | 3  | 0  | 0  | 0  | 0  | 0   | 408   |
|       | 12:00      | 0  | 0  | 0  | 0  | 3   | 43   | 34   | 6   | 0  | 0  | 0  | 0  | 0  | 0   | 86    |
|       | 12:15      | 0  | 0  | 0  | 1  | 12  | 54   | 36   | 2   | 0  | 0  | 0  | 0  | 0  | 0   | 105   |
|       | 12:30      | 0  | 1  | 1  | 0  | 9   | 36   | 43   | 8   | 1  | 0  | 0  | 0  | 0  | 0   | 99    |
|       | 12:45      | 0  | 1  | 1  | 2  | 7   | 37   | 39   | 6   | 1  | 0  | 0  | 0  | 0  | 0   | 94    |
|       | 13:00      | 0  | 2  | 2  | 3  | 31  | 170  | 152  | 22  | 2  | 0  | 0  | 0  | 0  | 0   | 384   |
|       | 13:15      | 0  | 0  | 0  | 0  | 9   | 29   | 39   | 8   | 1  | 0  | 0  | 0  | 0  | 0   | 86    |
|       | 13:30      | 0  | 0  | 0  | 0  | 4   | 39   | 40   | 13  | 0  | 0  | 0  | 0  | 0  | 0   | 96    |
|       | 13:45      | 1  | 0  | 0  | 4  | 18  | 52   | 28   | 2   | 0  | 0  | 0  | 0  | 0  | 0   | 105   |
|       | 14:00      | 1  | 0  | 0  | 0  | 9   | 64   | 21   | 2   | 0  | 0  | 0  | 0  | 0  | 0   | 97    |
|       | 14:15      | 2  | 0  | 0  | 4  | 40  | 184  | 128  | 25  | 1  | 0  | 0  | 0  | 0  | 0   | 384   |
| Total |            | 5  | 14 | 3  | 18 | 164 | 1164 | 1547 | 398 | 44 | 2  | 0  | 0  | 0  | 0   | 3359  |



# All Traffic Data Services

[www.alltrafficdata.net](http://www.alltrafficdata.net)

Site Code: 1

Station ID: 1

OLD CORNEILIA HWY WEST OF OCONEE CIRCLE

Latitude: 0' 0.0000 Undefined

Longitude: 0' 0.0000 Undefined

| WB | Start Time  | 15 | 1620 | 2125 | 2630 | 3135 | 3640 | 4145 | 4650 | 5155 | 5660 | 6165 | 6670 | 7175 | 76999 | Total |
|----|-------------|----|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|
|    | 12 PM       | 1  | 3    | 0    | 0    | 12   | 65   | 11   | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 92    |
|    | 12:15       | 0  | 1    | 0    | 0    | 18   | 44   | 39   | 1    | 0    | 0    | 0    | 0    | 0    | 0     | 103   |
|    | 12:30       | 0  | 0    | 0    | 1    | 9    | 44   | 41   | 3    | 0    | 0    | 0    | 0    | 0    | 0     | 98    |
|    | 12:45       | 3  | 1    | 0    | 1    | 5    | 52   | 30   | 9    | 2    | 0    | 0    | 0    | 0    | 0     | 103   |
|    |             | 4  | 5    | 0    | 2    | 44   | 205  | 121  | 13   | 2    | 0    | 0    | 0    | 0    | 0     | 396   |
|    | 13:00       | 0  | 0    | 1    | 0    | 6    | 51   | 38   | 13   | 0    | 0    | 0    | 0    | 0    | 0     | 109   |
|    | 13:15       | 0  | 1    | 0    | 1    | 13   | 24   | 24   | 4    | 2    | 0    | 0    | 0    | 0    | 0     | 69    |
|    | 13:30       | 2  | 1    | 0    | 3    | 12   | 51   | 41   | 4    | 2    | 0    | 0    | 0    | 0    | 0     | 116   |
|    | 13:45       | 1  | 2    | 0    | 0    | 3    | 40   | 28   | 10   | 4    | 0    | 0    | 0    | 0    | 0     | 88    |
|    |             | 3  | 4    | 1    | 4    | 34   | 166  | 131  | 31   | 8    | 0    | 0    | 0    | 0    | 0     | 382   |
|    | 14:00       | 0  | 0    | 0    | 0    | 6    | 42   | 27   | 7    | 1    | 0    | 0    | 0    | 0    | 0     | 83    |
|    | 14:15       | 1  | 0    | 0    | 1    | 12   | 36   | 38   | 8    | 0    | 0    | 0    | 0    | 0    | 0     | 96    |
|    | 14:30       | 3  | 0    | 0    | 1    | 1    | 27   | 41   | 16   | 0    | 0    | 0    | 0    | 0    | 0     | 89    |
|    | 14:45       | 0  | 0    | 1    | 0    | 5    | 35   | 48   | 14   | 0    | 1    | 0    | 0    | 0    | 0     | 104   |
|    |             | 4  | 0    | 1    | 2    | 24   | 140  | 154  | 45   | 1    | 1    | 0    | 0    | 0    | 0     | 372   |
|    | 15:00       | 0  | 1    | 2    | 4    | 3    | 13   | 30   | 7    | 0    | 1    | 0    | 0    | 0    | 0     | 61    |
|    | 15:15       | 2  | 1    | 0    | 8    | 18   | 62   | 38   | 9    | 6    | 0    | 0    | 0    | 0    | 0     | 144   |
|    | 15:30       | 0  | 0    | 0    | 1    | 6    | 40   | 54   | 11   | 2    | 1    | 0    | 0    | 0    | 0     | 115   |
|    | 15:45       | 1  | 1    | 0    | 0    | 2    | 56   | 69   | 23   | 0    | 0    | 0    | 0    | 0    | 0     | 152   |
|    |             | 3  | 3    | 2    | 13   | 29   | 171  | 191  | 50   | 8    | 2    | 0    | 0    | 0    | 0     | 472   |
|    | 16:00       | 0  | 0    | 2    | 5    | 4    | 84   | 53   | 10   | 2    | 0    | 0    | 0    | 0    | 0     | 160   |
|    | 16:15       | 0  | 1    | 0    | 1    | 6    | 26   | 62   | 20   | 1    | 0    | 0    | 0    | 0    | 0     | 117   |
|    | 16:30       | 1  | 0    | 0    | 0    | 7    | 25   | 53   | 19   | 1    | 1    | 0    | 0    | 0    | 0     | 107   |
|    | 16:45       | 0  | 1    | 2    | 0    | 0    | 12   | 57   | 40   | 4    | 0    | 0    | 0    | 0    | 0     | 116   |
|    |             | 1  | 2    | 4    | 6    | 17   | 147  | 225  | 89   | 8    | 1    | 0    | 0    | 0    | 0     | 500   |
|    | 17:00       | 0  | 0    | 0    | 0    | 9    | 30   | 48   | 31   | 3    | 0    | 0    | 0    | 0    | 0     | 121   |
|    | 17:15       | 0  | 0    | 0    | 0    | 4    | 43   | 68   | 24   | 2    | 0    | 0    | 0    | 0    | 0     | 141   |
|    | 17:30       | 0  | 0    | 0    | 0    | 5    | 17   | 43   | 25   | 3    | 0    | 0    | 0    | 0    | 0     | 93    |
|    | 17:45       | 0  | 0    | 0    | 1    | 4    | 28   | 61   | 18   | 1    | 0    | 0    | 0    | 0    | 0     | 113   |
|    |             | 0  | 0    | 0    | 1    | 22   | 118  | 220  | 98   | 9    | 0    | 0    | 0    | 0    | 0     | 468   |
|    | 18:00       | 1  | 0    | 0    | 0    | 2    | 25   | 67   | 30   | 1    | 1    | 0    | 0    | 0    | 0     | 127   |
|    | 18:15       | 0  | 0    | 0    | 0    | 1    | 12   | 59   | 25   | 1    | 0    | 0    | 0    | 0    | 0     | 98    |
|    | 18:30       | 0  | 0    | 0    | 0    | 0    | 42   | 45   | 10   | 1    | 0    | 0    | 0    | 0    | 0     | 98    |
|    | 18:45       | 0  | 0    | 0    | 2    | 3    | 25   | 39   | 10   | 1    | 0    | 0    | 0    | 0    | 0     | 80    |
|    |             | 1  | 0    | 0    | 2    | 6    | 104  | 210  | 75   | 4    | 1    | 0    | 0    | 0    | 0     | 403   |
|    | 19:00       | 0  | 0    | 0    | 0    | 1    | 13   | 48   | 12   | 1    | 0    | 0    | 0    | 0    | 0     | 75    |
|    | 19:15       | 0  | 0    | 0    | 1    | 4    | 19   | 38   | 9    | 0    | 0    | 0    | 0    | 0    | 0     | 71    |
|    | 19:30       | 0  | 0    | 0    | 0    | 2    | 17   | 28   | 7    | 3    | 0    | 0    | 0    | 0    | 0     | 57    |
|    | 19:45       | 0  | 0    | 0    | 0    | 2    | 16   | 15   | 5    | 0    | 0    | 0    | 0    | 0    | 0     | 38    |
|    |             | 0  | 0    | 0    | 1    | 9    | 65   | 129  | 33   | 4    | 0    | 0    | 0    | 0    | 0     | 241   |
|    | 20:00       | 0  | 0    | 0    | 0    | 1    | 15   | 23   | 2    | 3    | 0    | 0    | 0    | 0    | 0     | 44    |
|    | 20:15       | 0  | 0    | 0    | 1    | 2    | 7    | 17   | 11   | 0    | 0    | 0    | 0    | 0    | 0     | 38    |
|    | 20:30       | 0  | 0    | 0    | 0    | 3    | 13   | 20   | 7    | 0    | 0    | 0    | 0    | 0    | 0     | 43    |
|    | 20:45       | 0  | 1    | 0    | 1    | 0    | 3    | 12   | 10   | 1    | 1    | 0    | 0    | 0    | 0     | 29    |
|    |             | 0  | 1    | 0    | 2    | 6    | 38   | 72   | 30   | 4    | 1    | 0    | 0    | 0    | 0     | 154   |
|    | 21:00       | 0  | 0    | 0    | 0    | 0    | 6    | 17   | 7    | 2    | 0    | 0    | 0    | 0    | 0     | 32    |
|    | 21:15       | 0  | 0    | 0    | 1    | 1    | 15   | 15   | 5    | 1    | 0    | 0    | 0    | 0    | 0     | 38    |
|    | 21:30       | 0  | 0    | 0    | 0    | 1    | 4    | 18   | 4    | 0    | 0    | 0    | 0    | 0    | 0     | 27    |
|    | 21:45       | 0  | 1    | 0    | 0    | 3    | 7    | 11   | 6    | 1    | 0    | 0    | 0    | 0    | 0     | 29    |
|    |             | 0  | 1    | 0    | 1    | 5    | 32   | 61   | 22   | 4    | 0    | 0    | 0    | 0    | 0     | 126   |
|    | 22:00       | 0  | 0    | 0    | 0    | 0    | 3    | 9    | 4    | 1    | 0    | 1    | 0    | 0    | 0     | 18    |
|    | 22:15       | 0  | 0    | 0    | 0    | 0    | 4    | 11   | 8    | 0    | 0    | 0    | 0    | 0    | 0     | 23    |
|    | 22:30       | 0  | 0    | 0    | 0    | 3    | 3    | 8    | 2    | 0    | 0    | 0    | 0    | 0    | 0     | 16    |
|    | 22:45       | 0  | 0    | 0    | 0    | 0    | 3    | 7    | 0    | 1    | 0    | 0    | 0    | 0    | 0     | 11    |
|    |             | 0  | 0    | 0    | 0    | 3    | 13   | 35   | 14   | 2    | 0    | 1    | 0    | 0    | 0     | 68    |
|    | 23:00       | 0  | 0    | 0    | 0    | 3    | 2    | 4    | 1    | 1    | 0    | 0    | 0    | 0    | 0     | 11    |
|    | 23:15       | 0  | 0    | 0    | 1    | 2    | 3    | 3    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 9     |
|    | 23:30       | 0  | 0    | 0    | 0    | 1    | 5    | 2    | 1    | 0    | 0    | 0    | 0    | 0    | 0     | 9     |
|    | 23:45       | 0  | 0    | 0    | 0    | 0    | 1    | 0    | 3    | 0    | 0    | 0    | 0    | 0    | 0     | 4     |
|    |             | 0  | 0    | 0    | 1    | 6    | 11   | 9    | 5    | 1    | 0    | 0    | 0    | 0    | 0     | 33    |
|    | Total       | 16 | 16   | 8    | 35   | 205  | 1210 | 1558 | 505  | 55   | 6    | 1    | 0    | 0    | 0     | 3615  |
|    | Grand Total | 21 | 30   | 11   | 53   | 369  | 2374 | 3105 | 903  | 99   | 8    | 1    | 0    | 0    | 0     | 6974  |

15th Percentile : 36 MPH  
 50th Percentile : 41 MPH  
 85th Percentile : 44 MPH  
 95th Percentile : 48 MPH

Stats Mean Speed(Average) : 41 MPH  
 10 MPH Pace Speed : 36-45 MPH  
 Number in Pace : 5479

|                                |       |
|--------------------------------|-------|
| Percent in Pace :              | 78.6% |
| Number of Vehicles > 55 MPH :  | 9     |
| Percent of Vehicles > 55 MPH : | 0.1%  |

# All Traffic Data Services

[www.alltrafficdata.net](http://www.alltrafficdata.net)

Page 1

Site Code: 1

Station ID: 1

OLD CORNEILIA HWY WEST OF OCONEE CIRCLE

Latitude: 0' 0.0000 Undefined

Longitude: 0' 0.0000 Undefined

EB

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|------------|-------|-----------------|-------------|-------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|-------|
| 02/17/21   | 0     | 7               | 2           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 9     |
| 00:15      | 0     | 5               | 1           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 6     |
| 00:30      | 0     | 6               | 0           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 7     |
| 00:45      | 0     | 4               | 2           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 6     |
| 01:00      | 0     | 22              | 5           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 28    |
| 01:15      | 0     | 5               | 0           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 5     |
| 01:30      | 0     | 9               | 2           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 11    |
| 01:45      | 0     | 5               | 0           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 5     |
| 02:00      | 0     | 3               | 0           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 4     |
| 02:15      | 0     | 22              | 2           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 25    |
| 02:30      | 0     | 4               | 0           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 4     |
| 02:45      | 0     | 3               | 1           | 0     | 0             | 0             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 6     |
| 03:00      | 0     | 5               | 1           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 6     |
| 03:15      | 0     | 5               | 1           | 0     | 0             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 7     |
| 03:30      | 0     | 17              | 3           | 0     | 0             | 0             | 0             | 0             | 3             | 0             | 0            | 0            | 0            | 23    |
| 03:45      | 0     | 2               | 0           | 0     | 0             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 3     |
| 04:00      | 0     | 1               | 1           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 2     |
| 04:15      | 0     | 5               | 0           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 5     |
| 04:30      | 0     | 3               | 0           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 4     |
| 04:45      | 0     | 11              | 1           | 0     | 1             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 14    |
| 05:00      | 0     | 3               | 2           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 5     |
| 05:15      | 0     | 2               | 0           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 2     |
| 05:30      | 0     | 6               | 1           | 0     | 0             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 8     |
| 05:45      | 0     | 7               | 0           | 0     | 0             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 8     |
| 06:00      | 0     | 18              | 3           | 0     | 0             | 1             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 23    |
| 06:15      | 0     | 12              | 2           | 0     | 1             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 16    |
| 06:30      | 0     | 11              | 0           | 0     | 1             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 13    |
| 06:45      | 0     | 15              | 5           | 0     | 0             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 21    |
| 07:00      | 0     | 16              | 7           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 23    |
| 07:15      | 0     | 54              | 14          | 0     | 2             | 0             | 0             | 0             | 3             | 0             | 0            | 0            | 0            | 73    |
| 07:30      | 1     | 24              | 5           | 1     | 1             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 33    |
| 07:45      | 0     | 26              | 13          | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 39    |
| 08:00      | 0     | 34              | 13          | 0     | 2             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 49    |
| 08:15      | 0     | 62              | 16          | 1     | 1             | 2             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 83    |
| 08:30      | 1     | 146             | 47          | 2     | 4             | 2             | 0             | 1             | 1             | 0             | 0            | 0            | 0            | 204   |
| 08:45      | 1     | 65              | 11          | 0     | 2             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 79    |
| 09:00      | 0     | 81              | 21          | 0     | 4             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 107   |
| 09:15      | 0     | 88              | 17          | 0     | 2             | 2             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 109   |
| 09:30      | 2     | 68              | 14          | 1     | 3             | 1             | 0             | 2             | 2             | 0             | 0            | 0            | 0            | 93    |
| 09:45      | 3     | 302             | 63          | 1     | 11            | 4             | 0             | 2             | 2             | 0             | 0            | 0            | 0            | 388   |
| 10:00      | 0     | 58              | 16          | 0     | 8             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 83    |
| 10:15      | 0     | 54              | 18          | 0     | 1             | 0             | 0             | 1             | 1             | 0             | 0            | 0            | 0            | 75    |
| 10:30      | 0     | 46              | 17          | 0     | 3             | 1             | 1             | 1             | 0             | 0             | 0            | 0            | 0            | 69    |
| 10:45      | 0     | 52              | 10          | 1     | 2             | 0             | 1             | 0             | 1             | 0             | 0            | 0            | 0            | 67    |
| 11:00      | 0     | 210             | 61          | 1     | 14            | 1             | 2             | 2             | 3             | 0             | 0            | 0            | 0            | 294   |
| 11:15      | 0     | 47              | 14          | 0     | 5             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 66    |
| 11:30      | 1     | 36              | 9           | 1     | 1             | 1             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 50    |
| 11:45      | 0     | 43              | 19          | 0     | 0             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 63    |
| 12:00      | 0     | 54              | 17          | 0     | 3             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 75    |
| 12:15      | 1     | 180             | 59          | 1     | 9             | 2             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 254   |
| 12:30      | 0     | 55              | 18          | 1     | 3             | 2             | 0             | 1             | 0             | 0             | 0            | 1            | 0            | 81    |
| 12:45      | 0     | 46              | 13          | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 60    |
| 13:00      | 0     | 65              | 17          | 1     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 83    |
| 13:15      | 0     | 58              | 14          | 0     | 1             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 74    |
| 13:30      | 0     | 224             | 62          | 2     | 5             | 3             | 0             | 1             | 0             | 0             | 0            | 1            | 0            | 298   |
| 13:45      | 0     | 60              | 10          | 0     | 2             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 73    |
| 14:00      | 0     | 65              | 17          | 0     | 4             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 87    |
| 14:15      | 0     | 63              | 13          | 0     | 3             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 80    |
| 14:30      | 0     | 81              | 13          | 0     | 3             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 97    |
| 14:45      | 0     | 269             | 53          | 0     | 12            | 1             | 0             | 2             | 0             | 0             | 0            | 0            | 0            | 337   |
| Total      | 5     | 1475            | 373         | 7     | 60            | 15            | 2             | 8             | 15            | 0             | 0            | 1            | 0            | 1961  |
| Percent    | 0.3%  | 75.2%           | 19.0%       | 0.4%  | 3.1%          | 0.8%          | 0.1%          | 0.4%          | 0.8%          | 0.0%          | 0.0%         | 0.1%         | 0.0%         |       |



# All Traffic Data Services

[www.alltrafficdata.net](http://www.alltrafficdata.net)

Page 2

Site Code: 1

Station ID: 1

OLD CORNEILIA HWY WEST OF OCONEE CIRCLE

Latitude: 0' 0.0000 Undefined

Longitude: 0' 0.0000 Undefined

EB

| Start Time  | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|-------------|-------|-----------------|-------------|-------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|-------|
| 12 PM       | 0     | 84              | 18          | 1     | 2             | 2             | 0             | 0             | 3             | 0             | 0            | 0            | 0            | 110   |
| 12:15       | 0     | 90              | 15          | 1     | 1             | 1             | 0             | 2             | 1             | 0             | 0            | 0            | 0            | 111   |
| 12:30       | 0     | 68              | 24          | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 92    |
| 12:45       | 0     | 67              | 18          | 0     | 1             | 1             | 0             | 1             | 1             | 0             | 0            | 0            | 0            | 89    |
|             | 0     | 309             | 75          | 2     | 4             | 4             | 0             | 3             | 5             | 0             | 0            | 0            | 0            | 402   |
| 13:00       | 0     | 82              | 17          | 1     | 2             | 0             | 0             | 1             | 1             | 0             | 1            | 0            | 0            | 105   |
| 13:15       | 0     | 72              | 18          | 0     | 3             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 94    |
| 13:30       | 0     | 74              | 13          | 0     | 5             | 1             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 94    |
| 13:45       | 0     | 66              | 20          | 0     | 3             | 2             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 92    |
|             | 0     | 294             | 68          | 1     | 13            | 3             | 0             | 3             | 2             | 0             | 1            | 0            | 0            | 385   |
| 14:00       | 1     | 75              | 19          | 0     | 3             | 1             | 0             | 1             | 1             | 0             | 0            | 0            | 0            | 101   |
| 14:15       | 1     | 74              | 22          | 1     | 3             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 101   |
| 14:30       | 1     | 75              | 15          | 0     | 0             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 92    |
| 14:45       | 0     | 89              | 24          | 0     | 6             | 0             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 121   |
|             | 3     | 313             | 80          | 1     | 12            | 1             | 0             | 2             | 3             | 0             | 0            | 0            | 0            | 415   |
| 15:00       | 1     | 94              | 22          | 0     | 2             | 2             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 121   |
| 15:15       | 1     | 99              | 13          | 0     | 5             | 1             | 0             | 0             | 2             | 0             | 0            | 1            | 0            | 122   |
| 15:30       | 1     | 99              | 21          | 0     | 2             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 124   |
| 15:45       | 0     | 105             | 22          | 0     | 3             | 2             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 132   |
|             | 3     | 397             | 78          | 0     | 12            | 5             | 0             | 1             | 2             | 0             | 0            | 1            | 0            | 499   |
| 16:00       | 0     | 106             | 32          | 0     | 3             | 1             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 143   |
| 16:15       | 2     | 134             | 27          | 2     | 2             | 1             | 0             | 2             | 0             | 0             | 0            | 0            | 0            | 170   |
| 16:30       | 1     | 137             | 28          | 0     | 3             | 3             | 0             | 1             | 2             | 0             | 0            | 1            | 0            | 176   |
| 16:45       | 1     | 140             | 37          | 0     | 3             | 0             | 0             | 2             | 0             | 0             | 0            | 0            | 0            | 183   |
|             | 4     | 517             | 124         | 2     | 11            | 5             | 0             | 6             | 2             | 0             | 0            | 1            | 0            | 672   |
| 17:00       | 0     | 167             | 33          | 0     | 2             | 2             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 205   |
| 17:15       | 0     | 163             | 45          | 0     | 1             | 0             | 0             | 0             | 0             | 1             | 0            | 1            | 0            | 211   |
| 17:30       | 0     | 138             | 36          | 0     | 4             | 0             | 1             | 2             | 0             | 0             | 0            | 0            | 0            | 181   |
| 17:45       | 0     | 131             | 18          | 0     | 1             | 1             | 0             | 1             | 1             | 0             | 0            | 0            | 0            | 153   |
|             | 0     | 599             | 132         | 0     | 8             | 3             | 1             | 4             | 1             | 1             | 0            | 1            | 0            | 750   |
| 18:00       | 0     | 108             | 25          | 0     | 4             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 138   |
| 18:15       | 0     | 86              | 15          | 0     | 3             | 0             | 1             | 1             | 0             | 0             | 0            | 0            | 0            | 106   |
| 18:30       | 2     | 109             | 15          | 0     | 2             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 129   |
| 18:45       | 1     | 81              | 14          | 1     | 0             | 2             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 99    |
|             | 3     | 384             | 69          | 1     | 9             | 2             | 1             | 3             | 0             | 0             | 0            | 0            | 0            | 472   |
| 19:00       | 0     | 76              | 18          | 0     | 1             | 0             | 0             | 2             | 1             | 0             | 0            | 0            | 0            | 98    |
| 19:15       | 0     | 79              | 19          | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 99    |
| 19:30       | 0     | 57              | 10          | 0     | 3             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 71    |
| 19:45       | 0     | 67              | 12          | 0     | 2             | 0             | 1             | 0             | 0             | 0             | 0            | 0            | 0            | 82    |
|             | 0     | 279             | 59          | 0     | 7             | 0             | 1             | 3             | 1             | 0             | 0            | 0            | 0            | 350   |
| 20:00       | 0     | 59              | 9           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 69    |
| 20:15       | 0     | 55              | 19          | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 74    |
| 20:30       | 0     | 52              | 8           | 1     | 0             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 62    |
| 20:45       | 1     | 37              | 13          | 0     | 2             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 53    |
|             | 1     | 203             | 49          | 1     | 3             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 258   |
| 21:00       | 0     | 32              | 13          | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 45    |
| 21:15       | 1     | 25              | 7           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 34    |
| 21:30       | 0     | 33              | 6           | 0     | 1             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 41    |
| 21:45       | 0     | 25              | 3           | 0     | 1             | 0             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 31    |
|             | 1     | 115             | 29          | 0     | 3             | 1             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 151   |
| 22:00       | 0     | 19              | 2           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 21    |
| 22:15       | 0     | 22              | 3           | 0     | 0             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 26    |
| 22:30       | 0     | 18              | 2           | 0     | 0             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 21    |
| 22:45       | 0     | 15              | 1           | 0     | 0             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 17    |
|             | 0     | 74              | 8           | 0     | 0             | 1             | 0             | 1             | 1             | 0             | 0            | 0            | 0            | 85    |
| 23:00       | 0     | 22              | 0           | 0     | 2             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 24    |
| 23:15       | 0     | 18              | 2           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 20    |
| 23:30       | 0     | 16              | 1           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 17    |
| 23:45       | 0     | 13              | 2           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 15    |
|             | 0     | 69              | 5           | 0     | 2             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 76    |
| Total       | 15    | 3553            | 776         | 8     | 84            | 26            | 3             | 26            | 19            | 1             | 1            | 3            | 0            | 4515  |
| Percent     | 0.3%  | 78.7%           | 17.2%       | 0.2%  | 1.9%          | 0.6%          | 0.1%          | 0.6%          | 0.4%          | 0.0%          | 0.0%         | 0.1%         | 0.0%         |       |
| Grand Total | 20    | 5028            | 1149        | 15    | 144           | 41            | 5             | 34            | 34            | 1             | 1            | 4            | 0            | 6476  |
| Percent     | 0.3%  | 77.6%           | 17.7%       | 0.2%  | 2.2%          | 0.6%          | 0.1%          | 0.5%          | 0.5%          | 0.0%          | 0.0%         | 0.1%         | 0.0%         |       |

# All Traffic Data Services

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Page 3

Site Code: 1

Station ID: 1

OLD CORNEILIA HWY WEST OF OCONEE CIRCLE

Latitude: 0' 0.0000 Undefined

Longitude: 0' 0.0000 Undefined

WB

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|------------|-------|-----------------|-------------|-------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|-------|
| 02/17/21   | 0     | 2               | 0           | 0     | 0             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 3     |
| 00:15      | 0     | 7               | 0           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 8     |
| 00:30      | 0     | 5               | 0           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 5     |
| 00:45      | 0     | 1               | 0           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 1     |
|            | 0     | 15              | 0           | 0     | 1             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 17    |
| 01:00      | 0     | 1               | 1           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 2     |
| 01:15      | 0     | 3               | 1           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 4     |
| 01:30      | 0     | 2               | 1           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 3     |
| 01:45      | 0     | 1               | 0           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 1     |
|            | 0     | 7               | 3           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 10    |
| 02:00      | 0     | 1               | 1           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 2     |
| 02:15      | 0     | 3               | 0           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 4     |
| 02:30      | 0     | 1               | 0           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 2     |
| 02:45      | 0     | 0               | 0           | 0     | 0             | 0             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 2     |
|            | 0     | 5               | 1           | 0     | 2             | 0             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 10    |
| 03:00      | 0     | 2               | 0           | 0     | 1             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 4     |
| 03:15      | 0     | 4               | 4           | 0     | 0             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 9     |
| 03:30      | 0     | 4               | 0           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 4     |
| 03:45      | 0     | 6               | 0           | 0     | 0             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 7     |
|            | 0     | 16              | 4           | 0     | 1             | 1             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 24    |
| 04:00      | 0     | 7               | 2           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 9     |
| 04:15      | 0     | 9               | 2           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 12    |
| 04:30      | 0     | 12              | 7           | 0     | 1             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 21    |
| 04:45      | 0     | 19              | 2           | 0     | 2             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 24    |
|            | 0     | 47              | 13          | 0     | 4             | 1             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 66    |
| 05:00      | 0     | 17              | 6           | 0     | 1             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 25    |
| 05:15      | 0     | 34              | 5           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 40    |
| 05:30      | 0     | 48              | 10          | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 58    |
| 05:45      | 0     | 40              | 18          | 1     | 1             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 61    |
|            | 0     | 139             | 39          | 1     | 3             | 0             | 0             | 1             | 1             | 0             | 0            | 0            | 0            | 184   |
| 06:00      | 0     | 55              | 13          | 0     | 2             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 70    |
| 06:15      | 0     | 88              | 25          | 0     | 14            | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 128   |
| 06:30      | 0     | 92              | 23          | 0     | 4             | 0             | 0             | 2             | 0             | 0             | 0            | 0            | 0            | 121   |
| 06:45      | 0     | 113             | 24          | 0     | 4             | 1             | 0             | 2             | 0             | 0             | 0            | 0            | 0            | 144   |
|            | 0     | 348             | 85          | 0     | 24            | 1             | 0             | 4             | 1             | 0             | 0            | 0            | 0            | 463   |
| 07:00      | 0     | 115             | 37          | 0     | 7             | 1             | 0             | 0             | 0             | 1             | 0            | 0            | 0            | 161   |
| 07:15      | 0     | 149             | 41          | 1     | 5             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 197   |
| 07:30      | 0     | 168             | 42          | 1     | 7             | 1             | 0             | 2             | 0             | 0             | 0            | 0            | 0            | 221   |
| 07:45      | 0     | 178             | 42          | 1     | 3             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 225   |
|            | 0     | 610             | 162         | 3     | 22            | 3             | 0             | 3             | 0             | 1             | 0            | 0            | 0            | 804   |
| 08:00      | 0     | 137             | 36          | 2     | 10            | 0             | 0             | 3             | 1             | 0             | 0            | 0            | 0            | 189   |
| 08:15      | 0     | 117             | 32          | 2     | 8             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 160   |
| 08:30      | 0     | 102             | 30          | 2     | 9             | 1             | 0             | 1             | 1             | 0             | 0            | 0            | 0            | 146   |
| 08:45      | 0     | 86              | 17          | 0     | 4             | 2             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 110   |
|            | 0     | 442             | 115         | 6     | 31            | 3             | 0             | 5             | 3             | 0             | 0            | 0            | 0            | 605   |
| 09:00      | 1     | 58              | 21          | 0     | 6             | 2             | 0             | 1             | 2             | 0             | 0            | 0            | 0            | 91    |
| 09:15      | 0     | 77              | 20          | 0     | 5             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 103   |
| 09:30      | 0     | 70              | 30          | 0     | 6             | 2             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 108   |
| 09:45      | 0     | 75              | 27          | 0     | 3             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 106   |
|            | 1     | 280             | 98          | 0     | 20            | 4             | 0             | 1             | 4             | 0             | 0            | 0            | 0            | 408   |
| 10:00      | 0     | 58              | 20          | 0     | 8             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 86    |
| 10:15      | 0     | 70              | 28          | 2     | 3             | 1             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 105   |
| 10:30      | 0     | 72              | 22          | 0     | 4             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 99    |
| 10:45      | 0     | 78              | 12          | 0     | 2             | 0             | 0             | 1             | 1             | 0             | 0            | 0            | 0            | 94    |
|            | 0     | 278             | 82          | 2     | 17            | 1             | 0             | 3             | 1             | 0             | 0            | 0            | 0            | 384   |
| 11:00      | 0     | 63              | 21          | 0     | 0             | 1             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 86    |
| 11:15      | 0     | 70              | 22          | 0     | 2             | 1             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 96    |
| 11:30      | 0     | 85              | 16          | 0     | 3             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 105   |
| 11:45      | 0     | 67              | 24          | 0     | 3             | 1             | 0             | 2             | 0             | 0             | 0            | 0            | 0            | 97    |
|            | 0     | 285             | 83          | 0     | 8             | 3             | 0             | 3             | 2             | 0             | 0            | 0            | 0            | 384   |
| Total      | 1     | 2472            | 685         | 12    | 133           | 17            | 0             | 20            | 18            | 1             | 0            | 0            | 0            | 3359  |
| Percent    | 0.0%  | 73.6%           | 20.4%       | 0.4%  | 4.0%          | 0.5%          | 0.0%          | 0.6%          | 0.5%          | 0.0%          | 0.0%         | 0.0%         | 0.0%         |       |

# All Traffic Data Services

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Site Code: 1

Station ID: 1

OLD CORNEILIA HWY WEST OF OCONEE CIRCLE

Latitude: 0' 0.0000 Undefined

Longitude: 0' 0.0000 Undefined

WB

| Start Time  | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|-------------|-------|-----------------|-------------|-------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|-------|
| 12 PM       | 0     | 64              | 24          | 0     | 2             | 0             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 92    |
| 12:15       | 0     | 76              | 24          | 0     | 2             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 103   |
| 12:30       | 0     | 68              | 19          | 0     | 8             | 1             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 98    |
| 12:45       | 0     | 80              | 20          | 0     | 1             | 1             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 103   |
|             | 0     | 288             | 87          | 0     | 13            | 3             | 0             | 1             | 4             | 0             | 0            | 0            | 0            | 396   |
| 13:00       | 1     | 78              | 25          | 1     | 4             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 109   |
| 13:15       | 0     | 46              | 19          | 1     | 1             | 2             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 69    |
| 13:30       | 0     | 85              | 25          | 0     | 5             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 116   |
| 13:45       | 0     | 73              | 13          | 0     | 2             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 88    |
|             | 1     | 282             | 82          | 2     | 12            | 2             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 382   |
| 14:00       | 0     | 60              | 16          | 0     | 4             | 2             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 83    |
| 14:15       | 0     | 74              | 15          | 1     | 5             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 96    |
| 14:30       | 0     | 70              | 13          | 1     | 4             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 89    |
| 14:45       | 0     | 77              | 22          | 0     | 4             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 104   |
|             | 0     | 281             | 66          | 2     | 17            | 5             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 372   |
| 15:00       | 0     | 39              | 12          | 0     | 8             | 1             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 61    |
| 15:15       | 0     | 117             | 20          | 0     | 4             | 1             | 0             | 2             | 0             | 0             | 0            | 0            | 0            | 144   |
| 15:30       | 0     | 86              | 23          | 0     | 6             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 115   |
| 15:45       | 0     | 120             | 29          | 0     | 2             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 152   |
|             | 0     | 362             | 84          | 0     | 20            | 3             | 0             | 3             | 0             | 0             | 0            | 0            | 0            | 472   |
| 16:00       | 0     | 125             | 24          | 0     | 7             | 0             | 0             | 3             | 1             | 0             | 0            | 0            | 0            | 160   |
| 16:15       | 0     | 95              | 18          | 1     | 3             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 117   |
| 16:30       | 0     | 90              | 13          | 0     | 2             | 2             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 107   |
| 16:45       | 0     | 77              | 36          | 0     | 3             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 116   |
|             | 0     | 387             | 91          | 1     | 15            | 2             | 0             | 3             | 1             | 0             | 0            | 0            | 0            | 500   |
| 17:00       | 0     | 96              | 21          | 0     | 4             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 121   |
| 17:15       | 0     | 106             | 29          | 0     | 4             | 2             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 141   |
| 17:30       | 1     | 74              | 16          | 0     | 2             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 93    |
| 17:45       | 0     | 81              | 24          | 0     | 5             | 1             | 0             | 2             | 0             | 0             | 0            | 0            | 0            | 113   |
|             | 1     | 357             | 90          | 0     | 15            | 3             | 0             | 2             | 0             | 0             | 0            | 0            | 0            | 468   |
| 18:00       | 0     | 102             | 21          | 0     | 3             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 127   |
| 18:15       | 0     | 78              | 19          | 1     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 98    |
| 18:30       | 0     | 80              | 12          | 0     | 5             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 98    |
| 18:45       | 0     | 63              | 15          | 0     | 2             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 80    |
|             | 0     | 323             | 67          | 1     | 10            | 1             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 403   |
| 19:00       | 0     | 55              | 15          | 1     | 3             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 75    |
| 19:15       | 0     | 58              | 11          | 0     | 2             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 71    |
| 19:30       | 0     | 38              | 15          | 0     | 2             | 0             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 57    |
| 19:45       | 1     | 28              | 9           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 38    |
|             | 1     | 179             | 50          | 1     | 7             | 0             | 0             | 1             | 2             | 0             | 0            | 0            | 0            | 241   |
| 20:00       | 1     | 36              | 7           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 44    |
| 20:15       | 0     | 29              | 8           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 38    |
| 20:30       | 0     | 34              | 9           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 43    |
| 20:45       | 0     | 22              | 5           | 0     | 2             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 29    |
|             | 1     | 121             | 29          | 0     | 3             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 154   |
| 21:00       | 0     | 28              | 2           | 0     | 2             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 32    |
| 21:15       | 0     | 31              | 3           | 1     | 3             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 38    |
| 21:30       | 0     | 22              | 4           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 27    |
| 21:45       | 0     | 27              | 2           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 29    |
|             | 0     | 108             | 11          | 1     | 6             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 126   |
| 22:00       | 0     | 13              | 5           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 18    |
| 22:15       | 0     | 15              | 6           | 0     | 1             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 23    |
| 22:30       | 0     | 15              | 0           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 16    |
| 22:45       | 0     | 7               | 3           | 0     | 0             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 11    |
|             | 0     | 50              | 14          | 0     | 2             | 0             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 68    |
| 23:00       | 0     | 10              | 1           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 11    |
| 23:15       | 0     | 7               | 1           | 0     | 0             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 9     |
| 23:30       | 0     | 8               | 1           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 9     |
| 23:45       | 0     | 2               | 1           | 0     | 0             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 4     |
|             | 0     | 27              | 4           | 0     | 0             | 0             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 33    |
| Total       | 4     | 2765            | 675         | 8     | 120           | 19            | 0             | 12            | 12            | 0             | 0            | 0            | 0            | 3615  |
| Percent     | 0.1%  | 76.5%           | 18.7%       | 0.2%  | 3.3%          | 0.5%          | 0.0%          | 0.3%          | 0.3%          | 0.0%          | 0.0%         | 0.0%         | 0.0%         |       |
| Grand Total | 5     | 5237            | 1360        | 20    | 253           | 36            | 0             | 32            | 30            | 1             | 0            | 0            | 0            | 6974  |
| Percent     | 0.1%  | 75.1%           | 19.5%       | 0.3%  | 3.6%          | 0.5%          | 0.0%          | 0.5%          | 0.4%          | 0.0%          | 0.0%         | 0.0%         | 0.0%         |       |



## APPENDIX D

### GDOT COUNT STATION DATA



0000139\_0210 - 139-0210

Description: SR 001100 BEG AT

County: Hall

Route number: 00145700

LRS section: 1392145700

Functional class: 4U - Minor Arterial (Urban)

Coordinates: 34.3155664, -83.78105939

## Site Data



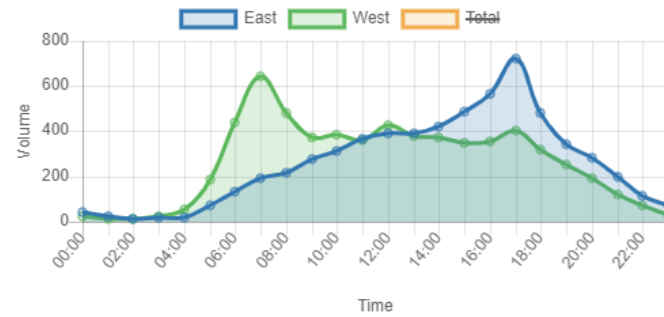
## Count History

| Year | Month     | Count type | Duration | Count |
|------|-----------|------------|----------|-------|
| 2020 | July      | Class      | 48 hours | 12442 |
| 2018 | September | Class      | 48 hours | 14113 |
| 2016 | July      | Class      | 48 hours | 11184 |
| 2012 | February  | Class      | 48 hours | 10964 |

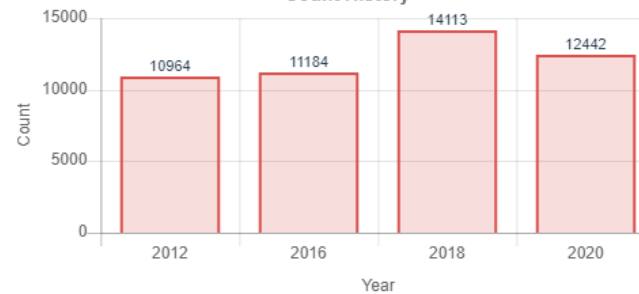
## Annual Statistics

| Data Item       | 2010  | 2011  | 2012 | 2013 | 2014 | 2015      | 2016   | 2017      | 2018   | 2019      |
|-----------------|-------|-------|------|------|------|-----------|--------|-----------|--------|-----------|
| Statistics type | -     | -     | -    | -    | -    | Estimated | Actual | Estimated | Actual | Estimated |
| AADT            | 10900 | 10600 | 9680 | 9620 | 9620 | 9940      | 10700  | 10800     | 12900  | 13000     |
| K-Factor        | -     | -     | -    | -    | -    | -         | 0.099  | -         | 0.109  | 0.109     |
| D-Factor        | -     | -     | -    | -    | -    | -         | 0.700  | -         | 0.720  | 0.720     |
| Future AADT     | -     | -     | -    | -    | -    | -         | 11700  | 13800     | 16300  | 17300     |

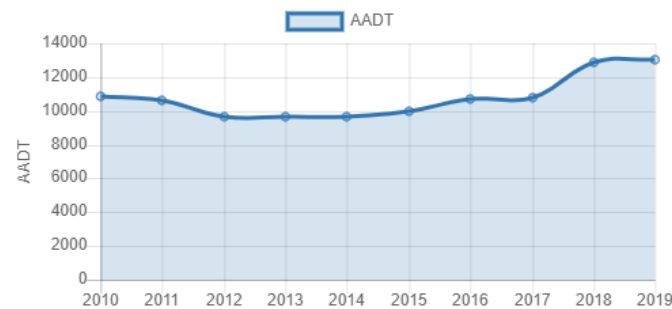
## Average Hourly Volume



## Count History



## AADT Trend



## FHWA Vehicle Classification

|                                                                                             |  |        |
|---------------------------------------------------------------------------------------------|--|--------|
| 1. Motorcycles<br>2 axes, 2 or 3 wheels.                                                    |  | 0.49%  |
| 2. Passenger cars<br>2 axes. Can have 1- or 2-<br>axle trailers.                            |  | 68.35% |
| 3. Pickups, panels, vans<br>2-axle, 4-tire single units. Can<br>have 1- or 2-axle trailers. |  | 25.11% |
| 4. Buses<br>2- or 3-axle, full length.                                                      |  | 0.18%  |
| 5. Single-unit trucks<br>2-axle, 6-tire, (dual rear tires),<br>single-unit trucks.          |  | 3.87%  |
| 6. Single-unit trucks<br>3-axle, single-unit trucks.                                        |  | 0.69%  |
| 7. Single-unit trucks<br>4 or more axle, single-unit<br>trucks.                             |  | 0.01%  |
| 8. Single-trailer trucks<br>3- or 4-axle, single-trailer<br>trucks.                         |  | 0.81%  |
| 9. Single-trailer trucks<br>5-axle, single-trailer trucks.                                  |  | 0.46%  |
| 10. Single-trailer trucks<br>6 or more axle, single-trailer<br>trucks.                      |  | 0.02%  |
| 11. Multi-trailer trucks<br>5 or less axle, multi-trailer<br>trucks.                        |  | 0%     |
| 12. Multi-trailer trucks<br>6-axle, multi-trailer trucks.                                   |  | 0%     |
| 13. Multi-trailer trucks<br>7 or more axle, multi-trailer<br>trucks.                        |  | 0.02%  |

0000139\_0223 - 139-0223

County: Hall

Route number: 00145700

LRS section: 1392145700

Functional class: 4U - Minor Arterial (Urban)

Coordinates: 34.3148687108439, -83.7633518913534

## Site Data



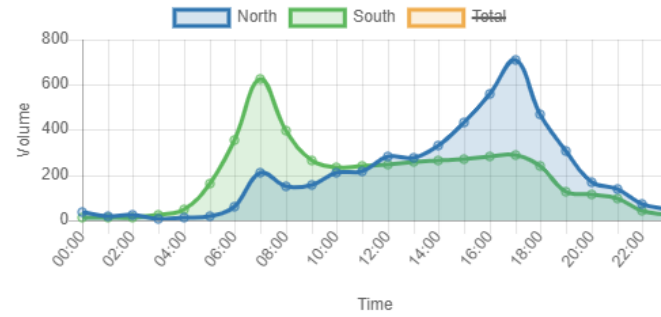
## Count History

| Year | Month     | Count type | Duration | Count |
|------|-----------|------------|----------|-------|
| 2019 | January   | Class      | 48 hours | 9540  |
| 2015 | June      | Volume     | 48 hours | 9300  |
| 2011 | September | Volume     | 48 hours | 9170  |

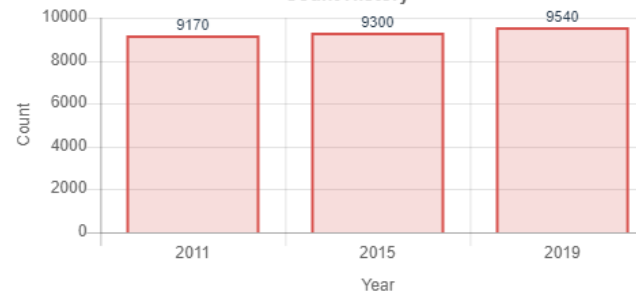
## Annual Statistics

| Data Item       | 2010 | 2011 | 2012 | 2013 | 2014 | 2015   | 2016      | 2017      | 2018      | 2019   |
|-----------------|------|------|------|------|------|--------|-----------|-----------|-----------|--------|
| Statistics type | -    | -    | -    | -    | -    | Actual | Estimated | Estimated | Estimated | Actual |
| AADT            | 7890 | 8380 | 8260 | 8440 | 8440 | 8540   | 8790      | 8850      | 8780      | 9440   |
| K-Factor        | -    | -    | -    | -    | -    | 0.107  | 0.107     | -         | -         | 0.122  |
| D-Factor        | -    | -    | -    | -    | -    | 0.500  | 0.500     | -         | -         | 0.710  |
| Future AADT     | -    | -    | -    | -    | -    | -      | 9940      | 11300     | 11100     | 11900  |

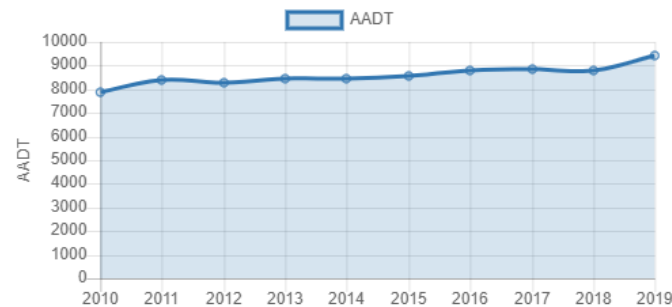
## Average Hourly Volume



## Count History



## AADT Trend



## FHWA Vehicle Classification

|                                                                                             |  |        |
|---------------------------------------------------------------------------------------------|--|--------|
| 1. Motorcycles<br>2 axes, 2 or 3 wheels.                                                    |  | 0.08%  |
| 2. Passenger cars<br>2 axes. Can have 1- or 2-<br>axle trailers.                            |  | 72.56% |
| 3. Pickups, panels, vans<br>2-axle, 4-tire single units. Can<br>have 1- or 2-axle trailers. |  | 22.76% |
| 4. Buses<br>2- or 3-axle, full length.                                                      |  | 0.25%  |
| 5. Single-unit trucks<br>2-axle, 6-tire, (dual rear tires),<br>single-unit trucks.          |  | 3.14%  |
| 6. Single-unit trucks<br>3-axle, single-unit trucks.                                        |  | 0.33%  |
| 7. Single-unit trucks<br>4 or more axle, single-unit<br>trucks.                             |  | 0.02%  |
| 8. Single-trailer trucks<br>3- or 4-axle, single-trailer<br>trucks.                         |  | 0.37%  |
| 9. Single-trailer trucks<br>5-axle, single-trailer trucks.                                  |  | 0.46%  |
| 10. Single-trailer trucks<br>6 or more axle, single-trailer<br>trucks.                      |  | 0.04%  |
| 11. Multi-trailer trucks<br>5 or less axle, multi-trailer<br>trucks.                        |  | 0%     |
| 12. Multi-trailer trucks<br>6-axle, multi-trailer trucks.                                   |  | 0%     |
| 13. Multi-trailer trucks<br>7 or more axle, multi-trailer<br>trucks.                        |  | 0.02%  |



## APPENDIX E

### CRASH DATA



| AccidentNo | AgencyName                   | Date      | Time     | County | Route                | IntersectingRoute | CrashSeverity | Injuries | Fatalities | MannerOfCollision                    | LocationOfImpact              | DriverAge1 | DriverAge2 | DirVeh1  | DirVeh2 | MnvrVeh1            | MnvrVeh2 | U1FirstHarmfulEvent     | U2FirstHarmfulEvent     |
|------------|------------------------------|-----------|----------|--------|----------------------|-------------------|---------------|----------|------------|--------------------------------------|-------------------------------|------------|------------|----------|---------|---------------------|----------|-------------------------|-------------------------|
| 5842103    | Hall County Sheriff's Office | 7/14/2016 | 3:49:00  | HALL   | OLD CORNELIA HWY     | DANA DR           | C             |          | 1          | 0 Not A Collision with Motor Vehicle | Off Roadway                   | 59         |            | -1 North | N/A     | Negotiating A Curve | N/A      | Curb                    | N/A                     |
| 6735663    | Hall County Sheriff's Office | 6/5/2018  | 0:00:00  | HALL   | DANA DR              | OLD CORNELIA HWY  | O             |          | 0          | 0 Not A Collision with Motor Vehicle | Off Roadway                   | 33         |            | -1 North | N/A     | Negotiating A Curve | N/A      | Curb                    | N/A                     |
| 7724878    | Gsp Post 00                  | 8/27/2019 | 7:47:00  | HALL   | OLD CORNELIA HIGHWAY | DANA DRIVE        | O             |          | 0          | 0 Rear End                           | On Roadway - Non-Intersection | 27         |            | 38 South | South   | Straight            | Stopped  | Motor Vehicle In Motion | Motor Vehicle In Motion |
| 7591584    | Gsp Post 00                  | 3/10/2020 | 14:30:00 | HALL   | OLD CORNELIA HIGHWAY | DANA ROAD         | O             |          | 0          | 0 Angle                              | On Roadway - Non-Intersection | 38         |            | 86 West  | West    | Making U-turn       | Passing  | Motor Vehicle In Motion | Motor Vehicle In Motion |

6392342 Hall County Sheriff's Office      9/12/2017   7:00:00 HALL   OLD CORNELIA   HWY   DANA CIR   O   0   0   Rear End   On Roadway - Roadway Intersection      60   71   East   East   Straight   Stopped   Motor Vehicle In Motion      Motor Vehicle In Motion



| AccidentNo | AgencyName                   | Date       | Time     | County | Route                          | IntersectingRoute             | CrashSeverity | Injuries | Fatalities | MannerOfCollision                    | LocationOfImpact                  | DriverAge1 | DriverAge2 | DirVeh1  | DirVeh2 | MnvrVeh1                 | MnvrVeh2            | U1FirstHarmfulEvent       | U2FirstHarmfulEvent     |
|------------|------------------------------|------------|----------|--------|--------------------------------|-------------------------------|---------------|----------|------------|--------------------------------------|-----------------------------------|------------|------------|----------|---------|--------------------------|---------------------|---------------------------|-------------------------|
| 5800638    | Gsp Post 00                  | 6/18/2016  | 8:36:00  | HALL   | RABBIT TOWN CAFE PARKING LOT   |                               | 0             | 0        | 0          | 0 Not A Collision with Motor Vehicle | On Roadway - Non-Intersection     | 88         |            | 21 South | North   | Backing                  | Parked              | Parked Motor Vehicle      | Parked Motor Vehicle    |
| 5987077    | Gsp Post 00                  | 11/3/2016  | 15:42:00 | HALL   | 2415A OLD CORNELIA HWY         |                               | 0             | 0        | 0          | 0 Rear End                           | On Roadway - Non-Intersection     | 38         |            | 21 None  | None    | Backing                  | Stopped             | Motor Vehicle In Motion   | Motor Vehicle In Motion |
| 5998337    | Gsp Post 00                  | 11/13/2016 | 20:43:00 | HALL   | GA 369 EASTBOUND               | WEST OF HAMILTON ROAD         | 0             | 0        | 0          | 0 Not A Collision with Motor Vehicle | On Roadway - Roadway Intersection | 24         |            | -1 East  | N/A     | Negotiating A Curve      | N/A                 | Animal                    | N/A                     |
| 6041249    | Gsp Post 00                  | 12/14/2016 | 13:42:00 | HALL   | OLD CORNELIA HWY SOUTH OF MG D |                               | B             | 1        | 0          | 0 Angle                              | On Shoulder                       | 41         |            | -1 South | N/A     | Straight                 | N/A                 | Tree                      | N/A                     |
| 6087123    | Gsp Post 00                  | 1/18/2017  | 15:40:00 | HALL   | OLD CORNELIA HWY OCONEE CIR    |                               | 0             | 0        | 0          | 0 Angle                              | On Roadway - Non-Intersection     | 74         |            | 28 East  | West    | Turning Left             | Straight            | Motor Vehicle In Motion   | Motor Vehicle In Motion |
| 6160709    | Hall County Sheriff's Office | 1/25/2017  | 22:41:00 | HALL   | OLD COCNELIA HWY               | OCONEE CIRCLE                 | B             | 1        | 0          | 0 Not A Collision with Motor Vehicle | On Shoulder                       | 62         |            | -1 East  | N/A     | Turning Left             | N/A                 | Highway Traffic Sign Post | N/A                     |
| 6137002    | Gsp Post 00                  | 3/1/2017   | 13:21:00 | HALL   | PARKING LOT RABBITOWN CAFE     |                               | 0             | 0        | 0          | 0 Angle                              | On Roadway - Non-Intersection     | 77         |            | 59 South | North   | Backing                  | Parked              | Parked Motor Vehicle      | Parked Motor Vehicle    |
| 6151425    | Gsp Post 00                  | 3/15/2017  | 7:47:00  | HALL   | OLDCORNELIA HIGHWAY            | 50 FEET EAST OF OCONEE CIRCLE | 0             | 0        | 0          | 0 Angle                              | On Roadway - Non-Intersection     | 36         |            | 44 South | West    | Changing Lanes           | Negotiating A Curve | Motor Vehicle In Motion   | Motor Vehicle In Motion |
| 6176416    | Gsp Post 00                  | 4/2/2017   | 13:12:00 | HALL   | OLD CORNELIA HIGHWAY EAST OF   |                               | 0             | 0        | 0          | 0 Sideswipe-Same Direction           | On Roadway - Non-Intersection     | 22         |            | 70 East  | East    | Changing Lanes           | Turning Left        | Motor Vehicle In Motion   | Motor Vehicle In Motion |
| 6281836    | Gsp Post 00                  | 6/20/2017  | 16:45:00 | HALL   | SR369 OLD CORNELIA HWY OCONE   |                               | B             | 2        | 0          | 0 Head On                            | On Roadway - Non-Intersection     | 44         |            | 25 East  | West    | Turning Left             | Straight            | Motor Vehicle In Motion   | Motor Vehicle In Motion |
| 6344422    | Gsp Post 00                  | 8/5/2017   | 19:46:00 | HALL   | OCONEE CIRCLE                  | NORTH OF OLD CORNELIA HIGHWAY | 0             | 0        | 0          | 0 Rear End                           | On Roadway - Non-Intersection     | 41         |            | 51 South | South   | Straight                 | Stopped             | Motor Vehicle In Motion   | Motor Vehicle In Motion |
| 6359696    | Gsp Post 00                  | 8/18/2017  | 14:43:00 | HALL   | 2310 OLD CORNELIA HIGHWAY      |                               | 0             | 0        | 0          | 0 Angle                              | On Roadway - Non-Intersection     | 59         |            | 26 None  | None    | Backing                  | Stopped             | Motor Vehicle In Motion   | Motor Vehicle In Motion |
| 6493354    | Gsp Post 00                  | 10/14/2017 | 17:29:00 | HALL   | 2415 OLD CORNELIA HIGHWAY      | RABBITTOWN CAFE PARKING LOT   | 0             | 0        | 0          | 0 Not A Collision with Motor Vehicle | On Roadway - Non-Intersection     | 38         |            | -1 North | N/A     | Parked                   | N/A                 | Motor Vehicle In Motion   | N/A                     |
| 6459451    | Gsp Post 00                  | 11/4/2017  | 13:02:00 | HALL   | 2415 OLD CORNELIA HWY          | PETROFAST PARKING LOT         | 0             | 0        | 0          | 0 Sideswipe-Same Direction           | On Roadway - Non-Intersection     | 43         |            | 29 None  | West    | Backing                  | Parked              | Parked Motor Vehicle      | Parked Motor Vehicle    |
| 6569769    | Gsp Post 00                  | 1/28/2018  | 12:31:00 | HALL   | 2415 OLD CORNELIA HIGHWAY      | RABBITTOWN CAFE PARKING LOT   | 0             | 0        | 0          | 0 Angle                              | On Roadway - Non-Intersection     | 36         |            | 28 West  | South   | Straight                 | Straight            | Motor Vehicle In Motion   | Motor Vehicle In Motion |
| 6773607    | Gsp Post 00                  | 6/28/2018  | 12:55:00 | HALL   | OLD CORNELIA HWY               | OCONEE CIR                    | 0             | 0        | 0          | 0 Sideswipe-Same Direction           | Private Property                  | 79         |            | 73 West  | North   | Turning Right            | Parked              | Parked Motor Vehicle      | Motor Vehicle In Motion |
| 6801776    | Gsp Post 00                  | 7/23/2018  | 10:18:00 | HALL   | 2415 OLD CORNELIA HIGHWAY      | CHEVRON GAS STATION           | 0             | 0        | 0          | 0 Sideswipe-Same Direction           | Private Property                  | 0          |            | 50 North | South   | Straight                 | Parked              | Parked Motor Vehicle      | Motor Vehicle In Motion |
| 6836142    | Gsp Post 00                  | 8/15/2018  | 12:09:00 | HALL   | 2415 OLD CORNELIA HIGHWAY      | RABBITTOWN CAFE PARKING LOT   | 0             | 0        | 0          | 0 Rear End                           | Private Property                  | 68         |            | 51 North | West    | Turning Left             | Parked              | Parked Motor Vehicle      | Motor Vehicle In Motion |
| 6847772    | Gsp Post 00                  | 8/24/2018  | 19:05:00 | HALL   | OCONEE CIRCLE                  | OLD CORNELIA HIGHWAY          | 0             | 0        | 0          | 0 Rear End                           | On Roadway - Roadway Intersection | 20         |            | 63 South | South   | Straight                 | Stopped             | Motor Vehicle In Motion   | Motor Vehicle In Motion |
| 7241304    | Gsp Post 00                  | 6/10/2019  | 8:21:00  | HALL   | 2415 OLD CORNELIA HIGHWAY      |                               | 0             | 0        | 0          | 0 Sideswipe-Same Direction           | Private Property                  | 26         |            | 20 East  | East    | Entering/Leaving Parking | Straight            | Motor Vehicle In Motion   | Motor Vehicle In Motion |
| 7470993    | Gsp Post 00                  | 12/8/2019  | 9:59:00  | HALL   | OLD CORNELIA HIGHWAY           | OCONEE CIRCLE                 | B             | 3        | 0          | 0 Angle                              | On Roadway - Roadway Intersection | 46         |            | 23 South | East    | Straight                 | Negotiating A Curve | Motor Vehicle In Motion   | Motor Vehicle In Motion |
| 7586080    | Gsp Post 00                  | 1/17/2020  | 8:23:00  | HALL   | OLD CORNELIA HWY               | OCONEE CIRCLE                 | C             | 1        | 0          | 0 Angle                              | On Roadway - Roadway Intersection | 71         |            | 56 North | West    | Straight                 | Straight            | Motor Vehicle In Motion   | Motor Vehicle In Motion |
| 7584540    | Gsp Post 00                  | 1/31/2020  | 7:26:00  | HALL   | OCONEE CIRCLE                  | OLD CORNELIA HIGHWAY          | 0             | 0        | 0          | 0 Not A Collision with Motor Vehicle | On Roadway - Non-Intersection     | 33         |            | -1 West  | N/A     | Straight                 | N/A                 | Deer                      | N/A                     |
| 7590193    | Gsp Post 00                  | 3/4/2020   | 15:39:00 | HALL   | OLD CORNELIA HIGHWAY           | OCONEE CIRCLE                 | 0             | 0        | 0          | 0 Sideswipe-Same Direction           | On Roadway - Roadway Intersection | 77         |            | 51 East  | East    | Changing Lanes           | Straight            | Motor Vehicle In Motion   | Motor Vehicle In Motion |

## APPENDIX F

### HALL COUNTY STRATEGIC PLAN

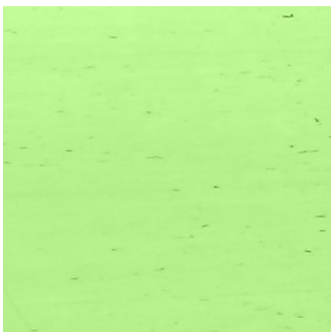




A STRATEGIC PLAN FOR

# HALL COUNTY

2018-2028



Carl Vinson Institute of Government  
UNIVERSITY OF GEORGIA

## Existing Plan Review

Institute faculty, with input from the Steering Committee, conducted a plan review to highlight initiatives, projects, and programs underway in Hall County. The plan review identified the major focus of each plan, successes achieved under each plan, and the status of each.

The following seven plans were reviewed:

- 2017 Hall County Economic Development Report
- Gainesville–Hall County Economic Development Council FY 2018 Marketing Plan
- Hall County Forward: 2017 Hall County Comprehensive Plan
- Hall County Fire Services 2016 Annual Report
- Hall County Annual Budget Guide FY 2018
- 2017 Hall County Service Delivery Strategy
- North and South Hall Sewer Master Plans

These documents were presented to the stakeholders to further develop their knowledge base. The information from the plans was also used to inform the discussion of prioritizing action items in the coming years. These plans are the roadmap for achieving a community’s objectives. The strategic plan contains the turn-by-turn directions.

## Common Themes

The following themes are found in the seven major guidance documents and plans Hall County has adopted and were used to guide discussions around developing strategic priorities for the next 10 years.

### POPULATION GROWTH

Hall County is projected to more than double in population by 2040, from 179,684 in 2010 to 371,570, a 106.8% increase. Population growth in the unincorporated area alone is projected to slightly exceed the countywide increase at 110.3%. The greatest percentage population increase is expected to occur to the north and east of Gainesville, in particular along the Highway 365 corridor. Residential growth is being stimulated by available jobs in skilled manufacturing and health care, lower home prices, and a high quality of life.

### ECONOMIC INVESTMENT AND WORKFORCE DEVELOPMENT

Hall County has benefited tremendously from major local employers like Kubota and Northeast Georgia Medical Center. According to market research conducted by the Greater Hall Chamber of Commerce, desirable new businesses include skilled manufacturing, biotechnology, health care, food processing, and transportation and logistics. Guiding the growth of specific industries and businesses through careful planning is a next step for Hall County. With economic investment comes the need for a skilled workforce. Building new talent in these industries locally has been and continues to be a priority for Hall County and its partners.



## APPENDIX G

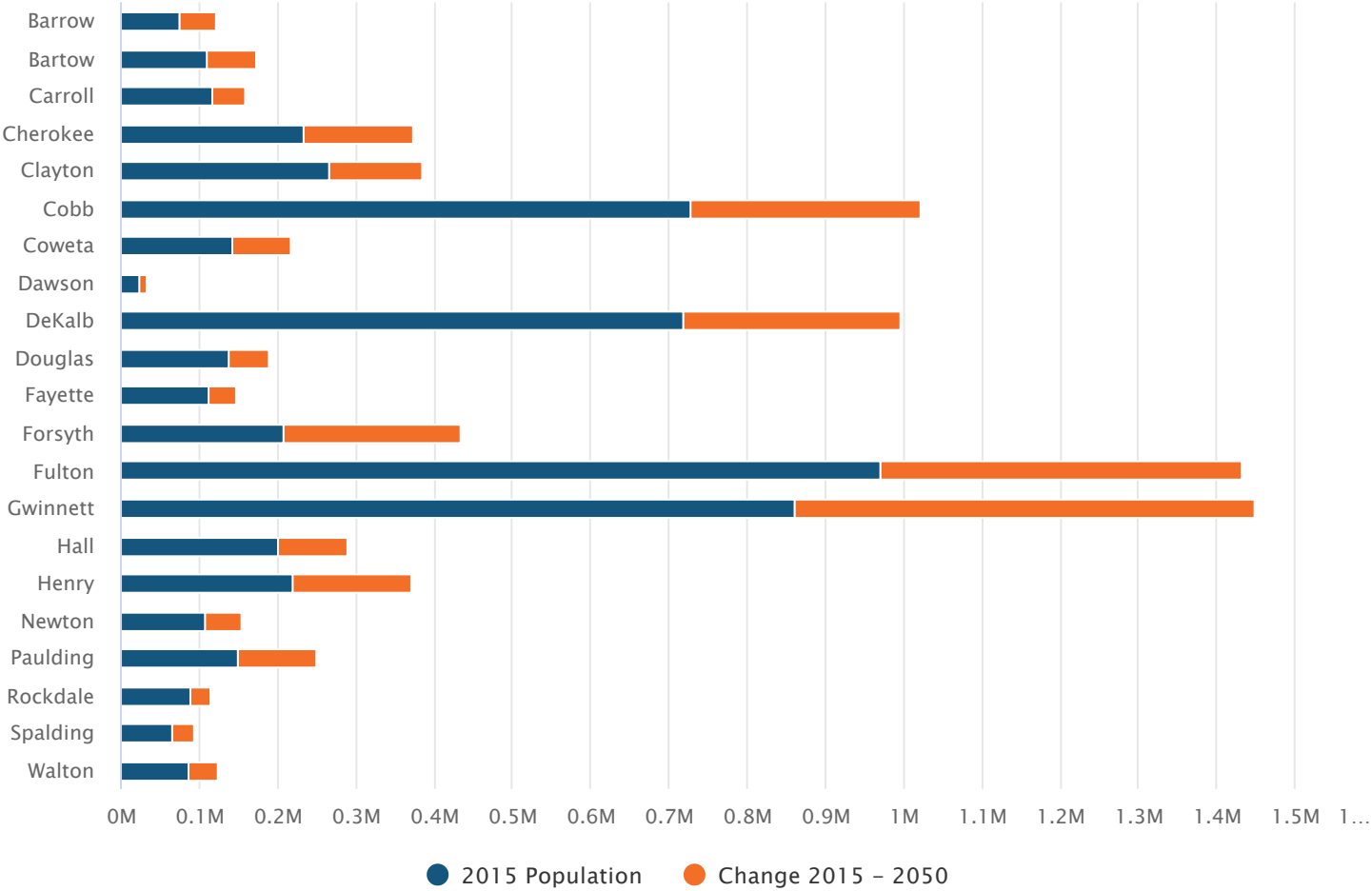
### ARC POPULATION FORECAST



# 2050 Population Forecast



Source: Atlanta Regional Commission



\*ARC's 2050 forecasts were developed using several growth scenarios for each county: a "higher regional growth" scenario, a "slower regional growth" scenario, and a "preferred" scenario that serves as the official forecast number.

Powered by Highcharts Cloud

## APPENDIX H

### TRIP GENERATION DATA



## Trip Generation Summary

Alternative: Alternative 1

Phase: Phase 1

Project: 21-1015 Sussex TIS

Open Date: 3/31/2021

Analysis Date: 3/31/2021

| ITE                              | Land Use           | Weekday Average Daily Trips |       |      |       | Weekday AM Peak Hour of Adjacent Street Traffic |       |      |       | Weekday PM Peak Hour of Adjacent Street Traffic |       |      |       |
|----------------------------------|--------------------|-----------------------------|-------|------|-------|-------------------------------------------------|-------|------|-------|-------------------------------------------------|-------|------|-------|
|                                  |                    | *                           | Enter | Exit | Total | *                                               | Enter | Exit | Total | *                                               | Enter | Exit | Total |
| 210                              | SFHOUSE 2          |                             | 939   | 938  | 1877  |                                                 | 35    | 106  | 141   |                                                 | 118   | 70   | 188   |
|                                  | 190 Dwelling Units |                             |       |      |       |                                                 |       |      |       |                                                 |       |      |       |
| 210                              | SFHOUSE 1          |                             | 2058  | 2058 | 4116  |                                                 | 81    | 242  | 323   |                                                 | 272   | 160  | 432   |
|                                  | 436 Dwelling Units |                             |       |      |       |                                                 |       |      |       |                                                 |       |      |       |
| 221                              | MID-RISE 1         |                             | 474   | 473  | 947   |                                                 | 16    | 47   | 63    |                                                 | 47    | 30   | 77    |
|                                  | 174 Dwelling Units |                             |       |      |       |                                                 |       |      |       |                                                 |       |      |       |
| 411                              | PUBLICPARK 1       |                             | 51    | 50   | 101   |                                                 | 0     | 0    | 0     |                                                 | 13    | 11   | 24    |
|                                  | 20 Acres           |                             |       |      |       |                                                 |       |      |       |                                                 |       |      |       |
| Unadjusted Volume                |                    |                             | 3522  | 3519 | 7041  |                                                 | 132   | 395  | 527   |                                                 | 450   | 271  | 721   |
| Internal Capture Trips           |                    |                             | 0     | 0    | 0     |                                                 | 0     | 0    | 0     |                                                 | 0     | 0    | 0     |
| Pass-By Trips                    |                    |                             | 0     | 0    | 0     |                                                 | 0     | 0    | 0     |                                                 | 0     | 0    | 0     |
| Volume Added to Adjacent Streets |                    |                             | 3522  | 3519 | 7041  |                                                 | 132   | 395  | 527   |                                                 | 450   | 271  | 721   |

Total Weekday Average Daily Trips Internal Capture = 0 Percent

Total Weekday AM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

Total Weekday PM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

\* - Custom rate used for selected time period.

Source: Institute of Transportation Engineers, Trip Generation Manual 10th Edition

**TRIP GENERATION 10, TRAFFICWARE, LLC**



## Trip Generation Summary

Alternative: Alternative 1

Phase: Phase 2

Project: 21-1015 Sussex TIS

Open Date: 3/31/2021

Analysis Date: 3/31/2021

| ITE                              | Land Use           | Weekday Average Daily Trips |       |      |       | Weekday AM Peak Hour of Adjacent Street Traffic |       |      |       | Weekday PM Peak Hour of Adjacent Street Traffic |       |      |       |
|----------------------------------|--------------------|-----------------------------|-------|------|-------|-------------------------------------------------|-------|------|-------|-------------------------------------------------|-------|------|-------|
|                                  |                    | *                           | Enter | Exit | Total | *                                               | Enter | Exit | Total | *                                               | Enter | Exit | Total |
| 210                              | SFHOUSE 2          |                             | 939   | 938  | 1877  |                                                 | 35    | 106  | 141   |                                                 | 118   | 70   | 188   |
|                                  | 190 Dwelling Units |                             |       |      |       |                                                 |       |      |       |                                                 |       |      |       |
| 210                              | SFHOUSE 1          |                             | 2294  | 2294 | 4588  |                                                 | 90    | 270  | 360   |                                                 | 303   | 178  | 481   |
|                                  | 486 Dwelling Units |                             |       |      |       |                                                 |       |      |       |                                                 |       |      |       |
| 221                              | MID-RISE 1         |                             | 2517  | 2517 | 5034  |                                                 | 87    | 246  | 333   |                                                 | 248   | 159  | 407   |
|                                  | 924 Dwelling Units |                             |       |      |       |                                                 |       |      |       |                                                 |       |      |       |
| 411                              | PUBLICPARK 1       |                             | 51    | 50   | 101   |                                                 | 0     | 0    | 0     |                                                 | 13    | 11   | 24    |
|                                  | 20 Acres           |                             |       |      |       |                                                 |       |      |       |                                                 |       |      |       |
| Unadjusted Volume                |                    |                             | 5801  | 5799 | 11600 |                                                 | 212   | 622  | 834   |                                                 | 682   | 418  | 1100  |
| Internal Capture Trips           |                    |                             | 0     | 0    | 0     |                                                 | 0     | 0    | 0     |                                                 | 0     | 0    | 0     |
| Pass-By Trips                    |                    |                             | 0     | 0    | 0     |                                                 | 0     | 0    | 0     |                                                 | 0     | 0    | 0     |
| Volume Added to Adjacent Streets |                    |                             | 5801  | 5799 | 11600 |                                                 | 212   | 622  | 834   |                                                 | 682   | 418  | 1100  |

Total Weekday Average Daily Trips Internal Capture = 0 Percent

Total Weekday AM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

Total Weekday PM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

\* - Custom rate used for selected time period.

Source: Institute of Transportation Engineers, Trip Generation Manual 10th Edition

**TRIP GENERATION 10, TRAFFICWARE, LLC**

## Trip Generation Summary

Alternative: Alternative 1

Phase: Phase 3

Project: 21-1015 Sussex TIS

Open Date: 3/31/2021

Analysis Date: 3/31/2021

| ITE                              | Land Use                         | Weekday Average Daily Trips |       |      |       | Weekday AM Peak Hour of Adjacent Street Traffic |       |      |       | Weekday PM Peak Hour of Adjacent Street Traffic |       |      |       |
|----------------------------------|----------------------------------|-----------------------------|-------|------|-------|-------------------------------------------------|-------|------|-------|-------------------------------------------------|-------|------|-------|
|                                  |                                  | *                           | Enter | Exit | Total | *                                               | Enter | Exit | Total | *                                               | Enter | Exit | Total |
| 210                              | SFHOUSE 2<br>190 Dwelling Units  |                             | 939   | 938  | 1877  |                                                 | 35    | 106  | 141   |                                                 | 118   | 70   | 188   |
| 210                              | SFHOUSE 1<br>1226 Dwelling Units |                             | 5787  | 5786 | 11573 |                                                 | 227   | 680  | 907   |                                                 | 765   | 449  | 1214  |
| 221                              | MID-RISE 1<br>924 Dwelling Units |                             | 2517  | 2517 | 5034  |                                                 | 87    | 246  | 333   |                                                 | 248   | 159  | 407   |
| 411                              | PUBLICPARK 1<br>20 Acres         |                             | 51    | 50   | 101   |                                                 | 0     | 0    | 0     |                                                 | 13    | 11   | 24    |
| Unadjusted Volume                |                                  |                             | 9294  | 9291 | 18585 |                                                 | 349   | 1032 | 1381  |                                                 | 1144  | 689  | 1833  |
| Internal Capture Trips           |                                  |                             | 0     | 0    | 0     |                                                 | 0     | 0    | 0     |                                                 | 0     | 0    | 0     |
| Pass-By Trips                    |                                  |                             | 0     | 0    | 0     |                                                 | 0     | 0    | 0     |                                                 | 0     | 0    | 0     |
| Volume Added to Adjacent Streets |                                  |                             | 9294  | 9291 | 18585 |                                                 | 349   | 1032 | 1381  |                                                 | 1144  | 689  | 1833  |

Total Weekday Average Daily Trips Internal Capture = 0 Percent

Total Weekday AM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

Total Weekday PM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

\* - Custom rate used for selected time period.

Source: Institute of Transportation Engineers, Trip Generation Manual 10th Edition

**TRIP GENERATION 10, TRAFFICWARE, LLC**

# APPENDIX I

## CAPACITY ANALYSIS REPORTS, EXISTING CONDITIONS



| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0.4                                                                               |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 479                                                                               | 10   | 1      | 845                                                                               | 14                                                                                | 3     |
| Future Vol, veh/h        | 479                                                                               | 10   | 1      | 845                                                                               | 14                                                                                | 3     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 7                                                                                 | 11   | 0      | 2                                                                                 | 0                                                                                 | 33    |
| Mvmt Flow                | 521                                                                               | 11   | 1      | 918                                                                               | 15                                                                                | 3     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 532    | 0                                                                                 | 1447                                                                              | 527   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 527                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 920                                                                               | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.1    | -                                                                                 | 6.4                                                                               | 6.53  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.4                                                                               | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.4                                                                               | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.2    | -                                                                                 | 3.5                                                                               | 3.597 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1046   | -                                                                                 | 146                                                                               | 495   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 596                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 392                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1046   | -                                                                                 | 146                                                                               | 495   |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 146                                                                               | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 596                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 391                                                                               | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 29.2                                                                              |       |
| HCM LOS                  | D                                                                                 |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 167                                                                               | -    | -      | 1046                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.111                                                                             | -    | -      | 0.001                                                                             | -                                                                                 |       |
| HCM Control Delay (s)    | 29.2                                                                              | -    | -      | 8.4                                                                               | 0                                                                                 |       |
| HCM Lane LOS             | D                                                                                 | -    | -      | A                                                                                 | A                                                                                 |       |
| HCM 95th %tile Q(veh)    | 0.4                                                                               | -    | -      | 0                                                                                 | -                                                                                 |       |



| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 15.5                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 432                                                                               | 73                                                                                | 43                                                                                | 816                                                                               | 85                                                                                | 57                                                                                |
| Future Vol, veh/h        | 432                                                                               | 73                                                                                | 43                                                                                | 816                                                                               | 85                                                                                | 57                                                                                |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | -                                                                                 | 200                                                                               | 150                                                                               | -                                                                                 | 0                                                                                 | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 83                                                                                | 83                                                                                | 83                                                                                | 83                                                                                | 83                                                                                | 83                                                                                |
| Heavy Vehicles, %        | 4                                                                                 | 3                                                                                 | 3                                                                                 | 2                                                                                 | 9                                                                                 | 10                                                                                |
| Mvmt Flow                | 520                                                                               | 88                                                                                | 52                                                                                | 983                                                                               | 102                                                                               | 69                                                                                |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor              | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   | Minor1                                                                            |                                                                                   |
| Conflicting Flow All     | 0                                                                                 | 0                                                                                 | 608                                                                               | 0                                                                                 | 1607                                                                              | 520                                                                               |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 520                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 1087                                                                              | -                                                                                 |
| Critical Hdwy            | -                                                                                 | -                                                                                 | 4.13                                                                              | -                                                                                 | 6.49                                                                              | 6.3                                                                               |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 5.49                                                                              | -                                                                                 |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 5.49                                                                              | -                                                                                 |
| Follow-up Hdwy           | -                                                                                 | -                                                                                 | 2.227                                                                             | -                                                                                 | 3.581                                                                             | 3.39                                                                              |
| Pot Cap-1 Maneuver       | -                                                                                 | -                                                                                 | 966                                                                               | -                                                                                 | 111                                                                               | 541                                                                               |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 583                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 313                                                                               | -                                                                                 |
| Platoon blocked, %       | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 |                                                                                   |                                                                                   |
| Mov Cap-1 Maneuver       | -                                                                                 | -                                                                                 | 966                                                                               | -                                                                                 | 105                                                                               | 541                                                                               |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 105                                                                               | -                                                                                 |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 583                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 296                                                                               | -                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                 | EB                                                                                |                                                                                   | WB                                                                                |                                                                                   | NB                                                                                |                                                                                   |
| HCM Control Delay, s     | 0                                                                                 |                                                                                   | 0.4                                                                               |                                                                                   | 161.5                                                                             |                                                                                   |
| HCM LOS                  | F                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               |                                                                                   |
| Capacity (veh/h)         | 155                                                                               | -                                                                                 | -                                                                                 | 966                                                                               | -                                                                                 |                                                                                   |
| HCM Lane V/C Ratio       | 1.104                                                                             | -                                                                                 | -                                                                                 | 0.054                                                                             | -                                                                                 |                                                                                   |
| HCM Control Delay (s)    | 161.5                                                                             | -                                                                                 | -                                                                                 | 8.9                                                                               | -                                                                                 |                                                                                   |
| HCM Lane LOS             | F                                                                                 | -                                                                                 | -                                                                                 | A                                                                                 | -                                                                                 |                                                                                   |
| HCM 95th %tile Q(veh)    | 9.1                                                                               | -                                                                                 | -                                                                                 | 0.2                                                                               | -                                                                                 |                                                                                   |

HCM 6th TWSC  
3: Shell Gas Station/Oconee Circle & Old Cornelia Highway

2021 - Existing Conditions  
AM Peak Hour

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 3.1                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |      |  |      |      |  |  |
| Traffic Vol, veh/h       | 31                                                                                | 463                                                                               | 3                                                                                 | 21                                                                                | 876                                                                               | 4                                                                                 | 3    | 0                                                                                 | 30   | 12   | 1                                                                                 | 102                                                                               |
| Future Vol, veh/h        | 31                                                                                | 463                                                                               | 3                                                                                 | 21                                                                                | 876                                                                               | 4                                                                                 | 3    | 0                                                                                 | 30   | 12   | 1                                                                                 | 102                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop | Stop                                                                              | Stop | Stop | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None                                                                              | -    | -                                                                                 | None | -    | -                                                                                 | None                                                                              |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 | -                                                                                 |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90   | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                |
| Heavy Vehicles, %        | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                | 34                                                                                | 514                                                                               | 3                                                                                 | 23                                                                                | 973                                                                               | 4                                                                                 | 3    | 0                                                                                 | 33   | 13   | 1                                                                                 | 113                                                                               |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |     |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|-----|
| Conflicting Flow All | 977    | 0 | 0 | 517    | 0 | 0 | 1660   | 1605 | 257 | 1346   | 1606 | 975 |
| Stage 1              | -      | - | - | -      | - | - | 582    | 582  | -   | 1021   | 1021 | -   |
| Stage 2              | -      | - | - | -      | - | - | 1078   | 1023 | -   | 325    | 585  | -   |
| Critical Hdwy        | 4.1    | - | - | 4.175  | - | - | 7.3    | 6.5  | 6.9 | 7.3    | 6.5  | 6.2 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.1    | 5.5  | -   |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.1    | 5.5  | -   | 6.5    | 5.5  | -   |
| Follow-up Hdwy       | 2.2    | - | - | 2.2475 | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3 |
| Pot Cap-1 Maneuver   | 714    | - | - | 1029   | - | - | 72     | 106  | 748 | 120    | 106  | 308 |
| Stage 1              | -      | - | - | -      | - | - | 471    | 502  | -   | 288    | 316  | -   |
| Stage 2              | -      | - | - | -      | - | - | 267    | 316  | -   | 667    | 501  | -   |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -   | -      | -    | -   |
| Mov Cap-1 Maneuver   | 714    | - | - | 1029   | - | - | 43     | 99   | 748 | 109    | 99   | 308 |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 43     | 99   | -   | 109    | 99   | -   |
| Stage 1              | -      | - | - | -      | - | - | 448    | 478  | -   | 274    | 309  | -   |
| Stage 2              | -      | - | - | -      | - | - | 164    | 309  | -   | 607    | 477  | -   |

| Approach             | EB  |  |  | WB  |  |  | NB   |  |  | SB   |  |  |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.6 |  |  | 0.2 |  |  | 18.7 |  |  | 32.5 |  |  |
| HCM LOS              |     |  |  |     |  |  | C    |  |  | D    |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 300   | 714   | -   | -   | 1029  | -   | -   | 255   |
| HCM Lane V/C Ratio    | 0.122 | 0.048 | -   | -   | 0.023 | -   | -   | 0.501 |
| HCM Control Delay (s) | 18.7  | 10.3  | -   | -   | 8.6   | -   | -   | 32.5  |
| HCM Lane LOS          | C     | B     | -   | -   | A     | -   | -   | D     |
| HCM 95th %tile Q(veh) | 0.4   | 0.2   | -   | -   | 0.1   | -   | -   | 2.6   |

| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.2                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 962                                                                               | 14   | 0    | 432                                                                               | 8                                                                                 | 0    |
| Future Vol, veh/h        | 962                                                                               | 14   | 0    | 432                                                                               | 8                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                | 90   |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2    | 1                                                                                 | 14                                                                                | 2    |
| Mvmt Flow                | 1069                                                                              | 16   | 0    | 480                                                                               | 9                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1085   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 643    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 643    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 38.6 |
| HCM LOS              |    |    | E    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 116   | -   | -   | 643 | -   |
| HCM Lane V/C Ratio    | 0.077 | -   | -   | -   | -   |
| HCM Control Delay (s) | 38.6  | -   | -   | 0   | -   |
| HCM Lane LOS          | E     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.2   | -   | -   | 0   | -   |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 1.1                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 965                                                                               | 24                                                                                | 3                                                                                 | 437                                                                               | 29                                                                                | 11                                                                                |
| Future Vol, veh/h        | 965                                                                               | 24                                                                                | 3                                                                                 | 437                                                                               | 29                                                                                | 11                                                                                |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | -                                                                                 | 200                                                                               | 150                                                                               | -                                                                                 | 0                                                                                 | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                |
| Heavy Vehicles, %        | 9                                                                                 | 0                                                                                 | 0                                                                                 | 2                                                                                 | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                | 1049                                                                              | 26                                                                                | 3                                                                                 | 475                                                                               | 32                                                                                | 12                                                                                |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor              | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   | Minor1                                                                            |                                                                                   |
| Conflicting Flow All     | 0                                                                                 | 0                                                                                 | 1075                                                                              | 0                                                                                 | 1530                                                                              | 1049                                                                              |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 1049                                                                              | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 481                                                                               | -                                                                                 |
| Critical Hdwy            | -                                                                                 | -                                                                                 | 4.1                                                                               | -                                                                                 | 6.4                                                                               | 6.2                                                                               |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 5.4                                                                               | -                                                                                 |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 5.4                                                                               | -                                                                                 |
| Follow-up Hdwy           | -                                                                                 | -                                                                                 | 2.2                                                                               | -                                                                                 | 3.5                                                                               | 3.3                                                                               |
| Pot Cap-1 Maneuver       | -                                                                                 | -                                                                                 | 656                                                                               | -                                                                                 | 130                                                                               | 279                                                                               |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 340                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 626                                                                               | -                                                                                 |
| Platoon blocked, %       | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 |                                                                                   |                                                                                   |
| Mov Cap-1 Maneuver       | -                                                                                 | -                                                                                 | 656                                                                               | -                                                                                 | 129                                                                               | 279                                                                               |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 129                                                                               | -                                                                                 |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 340                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 623                                                                               | -                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                 | EB                                                                                |                                                                                   | WB                                                                                |                                                                                   | NB                                                                                |                                                                                   |
| HCM Control Delay, s     | 0                                                                                 |                                                                                   | 0.1                                                                               |                                                                                   | 38.2                                                                              |                                                                                   |
| HCM LOS                  | E                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               |                                                                                   |
| Capacity (veh/h)         | 151                                                                               | -                                                                                 | -                                                                                 | 656                                                                               | -                                                                                 |                                                                                   |
| HCM Lane V/C Ratio       | 0.288                                                                             | -                                                                                 | -                                                                                 | 0.005                                                                             | -                                                                                 |                                                                                   |
| HCM Control Delay (s)    | 38.2                                                                              | -                                                                                 | -                                                                                 | 10.5                                                                              | -                                                                                 |                                                                                   |
| HCM Lane LOS             | E                                                                                 | -                                                                                 | -                                                                                 | B                                                                                 | -                                                                                 |                                                                                   |
| HCM 95th %tile Q(veh)    | 1.1                                                                               | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 |                                                                                   |



HCM 6th TWSC  
3: Shell Gas Station/Oconee Circle & Old Cornelia Highway

2021 - Existing Conditions  
PM Peak Hour

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 7.8                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |  |  |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 84                                                                                | 897                                                                               | 36                                                                                | 19                                                                                | 446                                                                               | 1    | 21   | 6                                                                                 | 90   | 2    | 2                                                                                   | 57   |
| Future Vol, veh/h        | 84                                                                                | 897                                                                               | 36                                                                                | 19                                                                                | 446                                                                               | 1    | 21   | 6                                                                                 | 90   | 2    | 2                                                                                   | 57   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87   | 87   | 87                                                                                | 87   | 87   | 87                                                                                  | 87   |
| Heavy Vehicles, %        | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Mvmt Flow                | 97                                                                                | 1031                                                                              | 41                                                                                | 22                                                                                | 513                                                                               | 1    | 24   | 7                                                                                 | 103  | 2    | 2                                                                                   | 66   |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |     |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|-----|
| Conflicting Flow All | 514    | 0 | 0 | 1072   | 0 | 0 | 1817   | 1783 | 516 | 1271   | 1824 | 514 |
| Stage 1              | -      | - | - | -      | - | - | 1225   | 1225 | -   | 558    | 558  | -   |
| Stage 2              | -      | - | - | -      | - | - | 592    | 558  | -   | 713    | 1266 | -   |
| Critical Hdwy        | 4.115  | - | - | 4.1    | - | - | 7.3    | 6.5  | 6.9 | 7.3    | 6.5  | 6.2 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.1    | 5.5  | -   |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.1    | 5.5  | -   | 6.5    | 5.5  | -   |
| Follow-up Hdwy       | 2.2095 | - | - | 2.2    | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3 |
| Pot Cap-1 Maneuver   | 1056   | - | - | 658    | - | - | 55     | 83   | 509 | 136    | 78   | 564 |
| Stage 1              | -      | - | - | -      | - | - | 193    | 254  | -   | 518    | 515  | -   |
| Stage 2              | -      | - | - | -      | - | - | 496    | 515  | -   | 394    | 242  | -   |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -   | -      | -    | -   |
| Mov Cap-1 Maneuver   | 1056   | - | - | 658    | - | - | 43     | 73   | 509 | 91     | 68   | 564 |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 43     | 73   | -   | 91     | 68   | -   |
| Stage 1              | -      | - | - | -      | - | - | 175    | 231  | -   | 470    | 498  | -   |
| Stage 2              | -      | - | - | -      | - | - | 422    | 498  | -   | 277    | 220  | -   |

| Approach             | EB  | WB  | NB   | SB   |
|----------------------|-----|-----|------|------|
| HCM Control Delay, s | 0.7 | 0.4 | 95.1 | 15.9 |
| HCM LOS              |     |     | F    | C    |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 157   | 1056  | -   | -   | 658   | -   | -   | 400   |
| HCM Lane V/C Ratio    | 0.857 | 0.091 | -   | -   | 0.033 | -   | -   | 0.175 |
| HCM Control Delay (s) | 95.1  | 8.8   | -   | -   | 10.7  | -   | -   | 15.9  |
| HCM Lane LOS          | F     | A     | -   | -   | B     | -   | -   | C     |
| HCM 95th %tile Q(veh) | 5.8   | 0.3   | -   | -   | 0.1   | -   | -   | 0.6   |

## APPENDIX J

### CAPACITY ANALYSIS REPORTS - NO-BUILD CONDITIONS



| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0.4                                                                               |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 508                                                                               | 11   | 1      | 896                                                                               | 15                                                                                | 3     |
| Future Vol, veh/h        | 508                                                                               | 11   | 1      | 896                                                                               | 15                                                                                | 3     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 7                                                                                 | 11   | 0      | 2                                                                                 | 0                                                                                 | 33    |
| Mvmt Flow                | 552                                                                               | 12   | 1      | 974                                                                               | 16                                                                                | 3     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 564    | 0                                                                                 | 1534                                                                              | 558   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 558                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 976                                                                               | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.1    | -                                                                                 | 6.4                                                                               | 6.53  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.4                                                                               | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.4                                                                               | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.2    | -                                                                                 | 3.5                                                                               | 3.597 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1018   | -                                                                                 | 129                                                                               | 475   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 577                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 368                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1018   | -                                                                                 | 129                                                                               | 475   |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 129                                                                               | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 577                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 367                                                                               | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 33.2                                                                              |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | D                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 147                                                                               | -    | -      | 1018                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.133                                                                             | -    | -      | 0.001                                                                             | -                                                                                 |       |
| HCM Control Delay (s)    | 33.2                                                                              | -    | -      | 8.5                                                                               | 0                                                                                 |       |
| HCM Lane LOS             | D                                                                                 | -    | -      | A                                                                                 | A                                                                                 |       |
| HCM 95th %tile Q(veh)    | 0.4                                                                               | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection               |        |                        |        |                            |        |                                |
|----------------------------|--------|------------------------|--------|----------------------------|--------|--------------------------------|
| Int Delay, s/veh           | 23.9   |                        |        |                            |        |                                |
| Movement                   | EBT    | EBR                    | WBL    | WBT                        | NBL    | NBR                            |
| Lane Configurations        | ↑      | ↗                      | ↖      | ↑                          | ↘↗     |                                |
| Traffic Vol, veh/h         | 458    | 77                     | 46     | 865                        | 90     | 60                             |
| Future Vol, veh/h          | 458    | 77                     | 46     | 865                        | 90     | 60                             |
| Conflicting Peds, #/hr     | 0      | 0                      | 0      | 0                          | 0      | 0                              |
| Sign Control               | Free   | Free                   | Free   | Free                       | Stop   | Stop                           |
| RT Channelized             | -      | None                   | -      | None                       | -      | None                           |
| Storage Length             | -      | 200                    | 150    | -                          | 0      | -                              |
| Veh in Median Storage, #   | 0      | -                      | -      | 0                          | 0      | -                              |
| Grade, %                   | 0      | -                      | -      | 0                          | 0      | -                              |
| Peak Hour Factor           | 83     | 83                     | 83     | 83                         | 83     | 83                             |
| Heavy Vehicles, %          | 4      | 3                      | 3      | 2                          | 9      | 10                             |
| Mvmt Flow                  | 552    | 93                     | 55     | 1042                       | 108    | 72                             |
|                            |        |                        |        |                            |        |                                |
| Major/Minor                | Major1 |                        | Major2 |                            | Minor1 |                                |
| Conflicting Flow All       | 0      | 0                      | 645    | 0                          | 1704   | 552                            |
| Stage 1                    | -      | -                      | -      | -                          | 552    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 1152   | -                              |
| Critical Hdwy              | -      | -                      | 4.13   | -                          | 6.49   | 6.3                            |
| Critical Hdwy Stg 1        | -      | -                      | -      | -                          | 5.49   | -                              |
| Critical Hdwy Stg 2        | -      | -                      | -      | -                          | 5.49   | -                              |
| Follow-up Hdwy             | -      | -                      | 2.227  | -                          | 3.581  | 3.39                           |
| Pot Cap-1 Maneuver         | -      | -                      | 935    | -                          | ~ 97   | 518                            |
| Stage 1                    | -      | -                      | -      | -                          | 563    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 292    | -                              |
| Platoon blocked, %         | -      | -                      |        | -                          |        |                                |
| Mov Cap-1 Maneuver         | -      | -                      | 935    | -                          | ~ 91   | 518                            |
| Mov Cap-2 Maneuver         | -      | -                      | -      | -                          | ~ 91   | -                              |
| Stage 1                    | -      | -                      | -      | -                          | 563    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 275    | -                              |
|                            |        |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Approach                   | EB     |                        | WB     |                            | NB     |                                |
| HCM Control Delay, s       | 0      |                        | 0.5    |                            | 251.4  |                                |
| HCM LOS                    | F      |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Minor Lane/Major Mvmt      | NBLn1  | EBT                    | EBR    | WBL                        | WBT    |                                |
| Capacity (veh/h)           | 136    | -                      | -      | 935                        | -      |                                |
| HCM Lane V/C Ratio         | 1.329  | -                      | -      | 0.059                      | -      |                                |
| HCM Control Delay (s)      | 251.4  | -                      | -      | 9.1                        | -      |                                |
| HCM Lane LOS               | F      | -                      | -      | A                          | -      |                                |
| HCM 95th %tile Q(veh)      | 11.5   | -                      | -      | 0.2                        | -      |                                |
| Notes                      |        |                        |        |                            |        |                                |
| ~: Volume exceeds capacity |        | \$: Delay exceeds 300s |        | +: Computation Not Defined |        | *: All major volume in platoon |



| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 3.8                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |  |  |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 33                                                                                | 491                                                                               | 3                                                                                 | 22                                                                                | 929                                                                               | 4    | 3    | 0                                                                                 | 32   | 13   | 1                                                                                   | 108  |
| Future Vol, veh/h        | 33                                                                                | 491                                                                               | 3                                                                                 | 22                                                                                | 929                                                                               | 4    | 3    | 0                                                                                 | 32   | 13   | 1                                                                                   | 108  |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90   | 90   | 90                                                                                | 90   | 90   | 90                                                                                  | 90   |
| Heavy Vehicles, %        | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Mvmt Flow                | 37                                                                                | 546                                                                               | 3                                                                                 | 24                                                                                | 1032                                                                              | 4    | 3    | 0                                                                                 | 36   | 14   | 1                                                                                   | 120  |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |      |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|------|
| Conflicting Flow All | 1036   | 0 | 0 | 549    | 0 | 0 | 1763   | 1704 | 273 | 1429   | 1705 | 1034 |
| Stage 1              | -      | - | - | -      | - | - | 620    | 620  | -   | 1082   | 1082 | -    |
| Stage 2              | -      | - | - | -      | - | - | 1143   | 1084 | -   | 347    | 623  | -    |
| Critical Hdwy        | 4.1    | - | - | 4.175  | - | - | 7.3    | 6.5  | 6.9 | 7.3    | 6.5  | 6.2  |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.1    | 5.5  | -    |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.1    | 5.5  | -   | 6.5    | 5.5  | -    |
| Follow-up Hdwy       | 2.2    | - | - | 2.2475 | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3  |
| Pot Cap-1 Maneuver   | 679    | - | - | 1001   | - | - | 60     | 93   | 731 | 105    | 92   | 285  |
| Stage 1              | -      | - | - | -      | - | - | 447    | 483  | -   | 266    | 296  | -    |
| Stage 2              | -      | - | - | -      | - | - | 246    | 296  | -   | 648    | 481  | -    |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -   | -      | -    | -    |
| Mov Cap-1 Maneuver   | 679    | - | - | 1001   | - | - | 32     | 86   | 731 | 94     | 85   | 285  |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 32     | 86   | -   | 94     | 85   | -    |
| Stage 1              | -      | - | - | -      | - | - | 423    | 457  | -   | 252    | 289  | -    |
| Stage 2              | -      | - | - | -      | - | - | 138    | 289  | -   | 583    | 455  | -    |

| Approach             | EB  |  |  | WB  |  |  | NB   |  |  | SB   |  |  |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.7 |  |  | 0.2 |  |  | 21.7 |  |  | 40.6 |  |  |
| HCM LOS              |     |  |  |     |  |  | C    |  |  | E    |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 254   | 679   | -   | -   | 1001  | -   | -   | 231   |
| HCM Lane V/C Ratio    | 0.153 | 0.054 | -   | -   | 0.024 | -   | -   | 0.587 |
| HCM Control Delay (s) | 21.7  | 10.6  | -   | -   | 8.7   | -   | -   | 40.6  |
| HCM Lane LOS          | C     | B     | -   | -   | A     | -   | -   | E     |
| HCM 95th %tile Q(veh) | 0.5   | 0.2   | -   | -   | 0.1   | -   | -   | 3.3   |

| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.2                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 1020                                                                              | 15   | 0    | 458                                                                               | 8                                                                                 | 0    |
| Future Vol, veh/h        | 1020                                                                              | 15   | 0    | 458                                                                               | 8                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                | 90   |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2    | 1                                                                                 | 14                                                                                | 2    |
| Mvmt Flow                | 1133                                                                              | 17   | 0    | 509                                                                               | 9                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1150   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | -      |
| Pot Cap-1 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 44.1 |
| HCM LOS              |    |    | E    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 101   | -   | -   | 608 | -   |
| HCM Lane V/C Ratio    | 0.088 | -   | -   | -   | -   |
| HCM Control Delay (s) | 44.1  | -   | -   | 0   | -   |
| HCM Lane LOS          | E     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.3   | -   | -   | 0   | -   |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 1.3    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑      | ↗    | ↖      | ↑     | ↘      |      |
| Traffic Vol, veh/h       | 1023   | 25   | 3      | 463   | 31     | 12   |
| Future Vol, veh/h        | 1023   | 25   | 3      | 463   | 31     | 12   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1112   | 27   | 3      | 503   | 34     | 13   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1139   | 0     | 1621   | 1112 |
| Stage 1                  | -      | -    | -      | -     | 1112   | -    |
| Stage 2                  | -      | -    | -      | -     | 509    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.4    | 6.2  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.4    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.4    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 621    | -     | 115    | 256  |
| Stage 1                  | -      | -    | -      | -     | 317    | -    |
| Stage 2                  | -      | -    | -      | -     | 608    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 621    | -     | 114    | 256  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 114    | -    |
| Stage 1                  | -      | -    | -      | -     | 317    | -    |
| Stage 2                  | -      | -    | -      | -     | 605    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.1    |       | 45.2   |      |
| HCM LOS                  |        |      |        |       | E      |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 135    | -    | -      | 621   | -      |      |
| HCM Lane V/C Ratio       | 0.346  | -    | -      | 0.005 | -      |      |
| HCM Control Delay (s)    | 45.2   | -    | -      | 10.8  | -      |      |
| HCM Lane LOS             | E      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 1.4    | -    | -      | 0     | -      |      |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 12.2                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |      |  |      |      |  |  |
| Traffic Vol, veh/h       | 89                                                                                | 951                                                                               | 38                                                                                | 20                                                                                | 473                                                                               | 1                                                                                 | 22   | 6                                                                                 | 95   | 2    | 2                                                                                 | 60                                                                                |
| Future Vol, veh/h        | 89                                                                                | 951                                                                               | 38                                                                                | 20                                                                                | 473                                                                               | 1                                                                                 | 22   | 6                                                                                 | 95   | 2    | 2                                                                                 | 60                                                                                |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop | Stop                                                                              | Stop | Stop | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None                                                                              | -    | -                                                                                 | None | -    | -                                                                                 | None                                                                              |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 | -                                                                                 |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87   | 87                                                                                | 87   | 87   | 87                                                                                | 87                                                                                |
| Heavy Vehicles, %        | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                | 102                                                                               | 1093                                                                              | 44                                                                                | 23                                                                                | 544                                                                               | 1                                                                                 | 25   | 7                                                                                 | 109  | 2    | 2                                                                                 | 69                                                                                |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |     |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|-----|
| Conflicting Flow All | 545    | 0 | 0 | 1137   | 0 | 0 | 1923   | 1888 | 547 | 1345   | 1932 | 545 |
| Stage 1              | -      | - | - | -      | - | - | 1297   | 1297 | -   | 591    | 591  | -   |
| Stage 2              | -      | - | - | -      | - | - | 626    | 591  | -   | 754    | 1341 | -   |
| Critical Hdwy        | 4.115  | - | - | 4.1    | - | - | 7.3    | 6.5  | 6.9 | 7.3    | 6.5  | 6.2 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.1    | 5.5  | -   |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.1    | 5.5  | -   | 6.5    | 5.5  | -   |
| Follow-up Hdwy       | 2.2095 | - | - | 2.2    | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3 |
| Pot Cap-1 Maneuver   | 1028   | - | - | 622    | - | - | 46     | 71   | 486 | 121    | 67   | 542 |
| Stage 1              | -      | - | - | -      | - | - | 174    | 234  | -   | 497    | 498  | -   |
| Stage 2              | -      | - | - | -      | - | - | 475    | 498  | -   | 372    | 223  | -   |
| Platoon blocked, %   |        | - | - |        | - | - |        |      |     |        |      |     |
| Mov Cap-1 Maneuver   | 1028   | - | - | 622    | - | - | 35     | 62   | 486 | 77     | 58   | 542 |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 35     | 62   | -   | 77     | 58   | -   |
| Stage 1              | -      | - | - | -      | - | - | 157    | 211  | -   | 448    | 480  | -   |
| Stage 2              | -      | - | - | -      | - | - | 397    | 480  | -   | 251    | 201  | -   |

| Approach             | EB  |  |  | WB  |  |  | NB    |  |  | SB |  |  |
|----------------------|-----|--|--|-----|--|--|-------|--|--|----|--|--|
| HCM Control Delay, s | 0.7 |  |  | 0.4 |  |  | 157.9 |  |  | 17 |  |  |
| HCM LOS              |     |  |  |     |  |  | F     |  |  | C  |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBL  | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 134   | 1028 | -   | -   | 622   | -   | -   | 374   |
| HCM Lane V/C Ratio    | 1.055 | 0.1  | -   | -   | 0.037 | -   | -   | 0.197 |
| HCM Control Delay (s) | 157.9 | 8.9  | -   | -   | 11    | -   | -   | 17    |
| HCM Lane LOS          | F     | A    | -   | -   | B     | -   | -   | C     |
| HCM 95th %tile Q(veh) | 7.8   | 0.3  | -   | -   | 0.1   | -   | -   | 0.7   |



| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.5                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 546                                                                               | 11   | 1    | 963                                                                               | 16                                                                                | 3    |
| Future Vol, veh/h        | 546                                                                               | 11   | 1    | 963                                                                               | 16                                                                                | 3    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 7                                                                                 | 11   | 0    | 2                                                                                 | 0                                                                                 | 33   |
| Mvmt Flow                | 593                                                                               | 12   | 1    | 1047                                                                              | 17                                                                                | 3    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |       |
|----------------------|--------|--------|--------|---|------|-------|
| Conflicting Flow All | 0      | 0      | 605    | 0 | 1648 | 599   |
| Stage 1              | -      | -      | -      | - | 599  | -     |
| Stage 2              | -      | -      | -      | - | 1049 | -     |
| Critical Hdwy        | -      | -      | 4.1    | - | 6.4  | 6.53  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.4  | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.4  | -     |
| Follow-up Hdwy       | -      | -      | 2.2    | - | 3.5  | 3.597 |
| Pot Cap-1 Maneuver   | -      | -      | 983    | - | 110  | 449   |
| Stage 1              | -      | -      | -      | - | 553  | -     |
| Stage 2              | -      | -      | -      | - | 340  | -     |
| Platoon blocked, %   | -      | -      | -      | - | -    | -     |
| Mov Cap-1 Maneuver   | -      | -      | 983    | - | 110  | 449   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 110  | -     |
| Stage 1              | -      | -      | -      | - | 553  | -     |
| Stage 2              | -      | -      | -      | - | 339  | -     |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 39.4 |
| HCM LOS              |    |    | E    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 125   | -   | -   | 983   | -   |
| HCM Lane V/C Ratio    | 0.165 | -   | -   | 0.001 | -   |
| HCM Control Delay (s) | 39.4  | -   | -   | 8.7   | 0   |
| HCM Lane LOS          | E     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.6   | -   | -   | 0     | -   |

| Intersection               |          |                        |        |                            |          |                                |
|----------------------------|----------|------------------------|--------|----------------------------|----------|--------------------------------|
| Int Delay, s/veh           | 40       |                        |        |                            |          |                                |
| Movement                   | EBT      | EBR                    | WBL    | WBT                        | NBL      | NBR                            |
| Lane Configurations        | ↑        | ↗                      | ↘      | ↑                          | ↘↗       |                                |
| Traffic Vol, veh/h         | 492      | 83                     | 49     | 930                        | 97       | 65                             |
| Future Vol, veh/h          | 492      | 83                     | 49     | 930                        | 97       | 65                             |
| Conflicting Peds, #/hr     | 0        | 0                      | 0      | 0                          | 0        | 0                              |
| Sign Control               | Free     | Free                   | Free   | Free                       | Stop     | Stop                           |
| RT Channelized             | -        | None                   | -      | None                       | -        | None                           |
| Storage Length             | -        | 200                    | 150    | -                          | 0        | -                              |
| Veh in Median Storage, #   | 0        | -                      | -      | 0                          | 0        | -                              |
| Grade, %                   | 0        | -                      | -      | 0                          | 0        | -                              |
| Peak Hour Factor           | 83       | 83                     | 83     | 83                         | 83       | 83                             |
| Heavy Vehicles, %          | 4        | 3                      | 3      | 2                          | 9        | 10                             |
| Mvmt Flow                  | 593      | 100                    | 59     | 1120                       | 117      | 78                             |
|                            |          |                        |        |                            |          |                                |
| Major/Minor                | Major1   |                        | Major2 |                            | Minor1   |                                |
| Conflicting Flow All       | 0        | 0                      | 693    | 0                          | 1831     | 593                            |
| Stage 1                    | -        | -                      | -      | -                          | 593      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 1238     | -                              |
| Critical Hdwy              | -        | -                      | 4.13   | -                          | 6.49     | 6.3                            |
| Critical Hdwy Stg 1        | -        | -                      | -      | -                          | 5.49     | -                              |
| Critical Hdwy Stg 2        | -        | -                      | -      | -                          | 5.49     | -                              |
| Follow-up Hdwy             | -        | -                      | 2.227  | -                          | 3.581    | 3.39                           |
| Pot Cap-1 Maneuver         | -        | -                      | 898    | -                          | ~ 80     | 491                            |
| Stage 1                    | -        | -                      | -      | -                          | 539      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 265      | -                              |
| Platoon blocked, %         | -        | -                      |        | -                          |          |                                |
| Mov Cap-1 Maneuver         | -        | -                      | 898    | -                          | ~ 75     | 491                            |
| Mov Cap-2 Maneuver         | -        | -                      | -      | -                          | ~ 75     | -                              |
| Stage 1                    | -        | -                      | -      | -                          | 539      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 248      | -                              |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Approach                   | EB       |                        | WB     |                            | NB       |                                |
| HCM Control Delay, s       | 0        |                        | 0.5    |                            | \$ 420.4 |                                |
| HCM LOS                    |          |                        |        |                            | F        |                                |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Minor Lane/Major Mvmt      | NBLn1    | EBT                    | EBR    | WBL                        | WBT      |                                |
| Capacity (veh/h)           | 114      | -                      | -      | 898                        | -        |                                |
| HCM Lane V/C Ratio         | 1.712    | -                      | -      | 0.066                      | -        |                                |
| HCM Control Delay (s)      | \$ 420.4 | -                      | -      | 9.3                        | -        |                                |
| HCM Lane LOS               | F        | -                      | -      | A                          | -        |                                |
| HCM 95th %tile Q(veh)      | 15       | -                      | -      | 0.2                        | -        |                                |
| Notes                      |          |                        |        |                            |          |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |        | +: Computation Not Defined |          | *: All major volume in platoon |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                     |                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh         | 5.2                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                     |                                                                                     |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations      |  |  |  |  |  |  |      |  |      |      |  |  |
| Traffic Vol, veh/h       | 35                                                                                | 528                                                                               | 3                                                                                 | 24                                                                                | 999                                                                               | 5                                                                                 | 3    | 0                                                                                 | 34   | 14   | 1                                                                                   | 116                                                                                 |
| Future Vol, veh/h        | 35                                                                                | 528                                                                               | 3                                                                                 | 24                                                                                | 999                                                                               | 5                                                                                 | 3    | 0                                                                                 | 34   | 14   | 1                                                                                   | 116                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0                                                                                   |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                | Stop                                                                                |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None                                                                              | -    | -                                                                                 | None | -    | -                                                                                   | None                                                                                |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                   | -                                                                                   |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                   | -                                                                                   |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                   | -                                                                                   |
| Peak Hour Factor         | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90   | 90                                                                                | 90   | 90   | 90                                                                                  | 90                                                                                  |
| Heavy Vehicles, %        | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0                                                                                   |
| Mvmt Flow                | 39                                                                                | 587                                                                               | 3                                                                                 | 27                                                                                | 1110                                                                              | 6                                                                                 | 3    | 0                                                                                 | 38   | 16   | 1                                                                                   | 129                                                                                 |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |      |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|------|
| Conflicting Flow All | 1116   | 0 | 0 | 590    | 0 | 0 | 1897   | 1835 | 294 | 1539   | 1835 | 1113 |
| Stage 1              | -      | - | - | -      | - | - | 665    | 665  | -   | 1167   | 1167 | -    |
| Stage 2              | -      | - | - | -      | - | - | 1232   | 1170 | -   | 372    | 668  | -    |
| Critical Hdwy        | 4.1    | - | - | 4.175  | - | - | 7.3    | 6.5  | 6.9 | 7.3    | 6.5  | 6.2  |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.1    | 5.5  | -    |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.1    | 5.5  | -   | 6.5    | 5.5  | -    |
| Follow-up Hdwy       | 2.2    | - | - | 2.2475 | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3  |
| Pot Cap-1 Maneuver   | 633    | - | - | 966    | - | - | 48     | 77   | 708 | 88     | 77   | 256  |
| Stage 1              | -      | - | - | -      | - | - | 420    | 461  | -   | 238    | 270  | -    |
| Stage 2              | -      | - | - | -      | - | - | 219    | 269  | -   | 626    | 459  | -    |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -   | -      | -    | -    |
| Mov Cap-1 Maneuver   | 633    | - | - | 966    | - | - | 22     | 70   | 708 | 78     | 70   | 256  |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 22     | 70   | -   | 78     | 70   | -    |
| Stage 1              | -      | - | - | -      | - | - | 394    | 432  | -   | 223    | 262  | -    |
| Stage 2              | -      | - | - | -      | - | - | 105    | 261  | -   | 556    | 431  | -    |

| Approach             | EB  |  |  | WB  |  |  | NB   |  |  | SB   |  |  |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.7 |  |  | 0.2 |  |  | 27.5 |  |  | 57.9 |  |  |
| HCM LOS              |     |  |  |     |  |  | D    |  |  | F    |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 201   | 633   | -   | -   | 966   | -   | -   | 203   |
| HCM Lane V/C Ratio    | 0.205 | 0.061 | -   | -   | 0.028 | -   | -   | 0.717 |
| HCM Control Delay (s) | 27.5  | 11.1  | -   | -   | 8.8   | -   | -   | 57.9  |
| HCM Lane LOS          | D     | B     | -   | -   | A     | -   | -   | F     |
| HCM 95th %tile Q(veh) | 0.7   | 0.2   | -   | -   | 0.1   | -   | -   | 4.6   |

| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.3                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 1097                                                                              | 16   | 0    | 492                                                                               | 9                                                                                 | 0    |
| Future Vol, veh/h        | 1097                                                                              | 16   | 0    | 492                                                                               | 9                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                | 90   |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2    | 1                                                                                 | 14                                                                                | 2    |
| Mvmt Flow                | 1219                                                                              | 18   | 0    | 547                                                                               | 10                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1237   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 563    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 563    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 52.9 |
| HCM LOS              |    |    | F    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 85    | -   | -   | 563 | -   |
| HCM Lane V/C Ratio    | 0.118 | -   | -   | -   | -   |
| HCM Control Delay (s) | 52.9  | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.4   | -   | -   | 0   | -   |



| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 1.6                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 1100                                                                              | 27                                                                                | 3                                                                                 | 498                                                                               | 33                                                                                | 13                                                                                |
| Future Vol, veh/h        | 1100                                                                              | 27                                                                                | 3                                                                                 | 498                                                                               | 33                                                                                | 13                                                                                |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | -                                                                                 | 200                                                                               | 150                                                                               | -                                                                                 | 0                                                                                 | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                |
| Heavy Vehicles, %        | 9                                                                                 | 0                                                                                 | 0                                                                                 | 2                                                                                 | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                | 1196                                                                              | 29                                                                                | 3                                                                                 | 541                                                                               | 36                                                                                | 14                                                                                |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor              | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   | Minor1                                                                            |                                                                                   |
| Conflicting Flow All     | 0                                                                                 | 0                                                                                 | 1225                                                                              | 0                                                                                 | 1743                                                                              | 1196                                                                              |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 1196                                                                              | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 547                                                                               | -                                                                                 |
| Critical Hdwy            | -                                                                                 | -                                                                                 | 4.1                                                                               | -                                                                                 | 6.4                                                                               | 6.2                                                                               |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 5.4                                                                               | -                                                                                 |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 5.4                                                                               | -                                                                                 |
| Follow-up Hdwy           | -                                                                                 | -                                                                                 | 2.2                                                                               | -                                                                                 | 3.5                                                                               | 3.3                                                                               |
| Pot Cap-1 Maneuver       | -                                                                                 | -                                                                                 | 576                                                                               | -                                                                                 | 96                                                                                | 229                                                                               |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 289                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 584                                                                               | -                                                                                 |
| Platoon blocked, %       | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 |                                                                                   |                                                                                   |
| Mov Cap-1 Maneuver       | -                                                                                 | -                                                                                 | 576                                                                               | -                                                                                 | 96                                                                                | 229                                                                               |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 96                                                                                | -                                                                                 |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 289                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 581                                                                               | -                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                 | EB                                                                                |                                                                                   | WB                                                                                |                                                                                   | NB                                                                                |                                                                                   |
| HCM Control Delay, s     | 0                                                                                 |                                                                                   | 0.1                                                                               |                                                                                   | 58.5                                                                              |                                                                                   |
| HCM LOS                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   | F                                                                                 |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               |                                                                                   |
| Capacity (veh/h)         | 115                                                                               | -                                                                                 | -                                                                                 | 576                                                                               | -                                                                                 |                                                                                   |
| HCM Lane V/C Ratio       | 0.435                                                                             | -                                                                                 | -                                                                                 | 0.006                                                                             | -                                                                                 |                                                                                   |
| HCM Control Delay (s)    | 58.5                                                                              | -                                                                                 | -                                                                                 | 11.3                                                                              | -                                                                                 |                                                                                   |
| HCM Lane LOS             | F                                                                                 | -                                                                                 | -                                                                                 | B                                                                                 | -                                                                                 |                                                                                   |
| HCM 95th %tile Q(veh)    | 1.9                                                                               | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 |                                                                                   |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                     |                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh         | 25                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                     |                                                                                     |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations      |  |  |  |  |  |  |      |  |      |      |  |  |
| Traffic Vol, veh/h       | 96                                                                                | 1023                                                                              | 41                                                                                | 22                                                                                | 508                                                                               | 1                                                                                 | 24   | 7                                                                                 | 103  | 2    | 2                                                                                   | 65                                                                                  |
| Future Vol, veh/h        | 96                                                                                | 1023                                                                              | 41                                                                                | 22                                                                                | 508                                                                               | 1                                                                                 | 24   | 7                                                                                 | 103  | 2    | 2                                                                                   | 65                                                                                  |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0                                                                                   |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                | Stop                                                                                |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None                                                                              | -    | -                                                                                 | None | -    | -                                                                                   | None                                                                                |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                   | -                                                                                   |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                   | -                                                                                   |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                   | -                                                                                   |
| Peak Hour Factor         | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87   | 87                                                                                | 87   | 87   | 87                                                                                  | 87                                                                                  |
| Heavy Vehicles, %        | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0                                                                                   |
| Mvmt Flow                | 110                                                                               | 1176                                                                              | 47                                                                                | 25                                                                                | 584                                                                               | 1                                                                                 | 28   | 8                                                                                 | 118  | 2    | 2                                                                                   | 75                                                                                  |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |     |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|-----|
| Conflicting Flow All | 585    | 0 | 0 | 1223   | 0 | 0 | 2069   | 2031 | 588 | 1447   | 2078 | 585 |
| Stage 1              | -      | - | - | -      | - | - | 1396   | 1396 | -   | 635    | 635  | -   |
| Stage 2              | -      | - | - | -      | - | - | 673    | 635  | -   | 812    | 1443 | -   |
| Critical Hdwy        | 4.115  | - | - | 4.1    | - | - | 7.3    | 6.5  | 6.9 | 7.3    | 6.5  | 6.2 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.1    | 5.5  | -   |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.1    | 5.5  | -   | 6.5    | 5.5  | -   |
| Follow-up Hdwy       | 2.2095 | - | - | 2.2    | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3 |
| Pot Cap-1 Maneuver   | 994    | - | - | 577    | - | - | 36     | 58   | 457 | 102    | 54   | 515 |
| Stage 1              | -      | - | - | -      | - | - | 151    | 210  | -   | 470    | 476  | -   |
| Stage 2              | -      | - | - | -      | - | - | 448    | 476  | -   | 343    | 199  | -   |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -   | -      | -    | -   |
| Mov Cap-1 Maneuver   | 994    | - | - | 577    | - | - | ~ 26   | 49   | 457 | 59     | 46   | 515 |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | ~ 26   | 49   | -   | 59     | 46   | -   |
| Stage 1              | -      | - | - | -      | - | - | 134    | 187  | -   | 418    | 456  | -   |
| Stage 2              | -      | - | - | -      | - | - | 365    | 456  | -   | 216    | 177  | -   |

| Approach             | EB  |  |  | WB  |  |  | NB       |  |  | SB   |  |  |
|----------------------|-----|--|--|-----|--|--|----------|--|--|------|--|--|
| HCM Control Delay, s | 0.8 |  |  | 0.5 |  |  | \$ 334.3 |  |  | 18.8 |  |  |
| HCM LOS              |     |  |  |     |  |  | F        |  |  | C    |  |  |

| Minor Lane/Major Mvmt | NBLn1    | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|----------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 104      | 994   | -   | -   | 577   | -   | -   | 339   |
| HCM Lane V/C Ratio    | 1.481    | 0.111 | -   | -   | 0.044 | -   | -   | 0.234 |
| HCM Control Delay (s) | \$ 334.3 | 9.1   | -   | -   | 11.5  | -   | -   | 18.8  |
| HCM Lane LOS          | F        | A     | -   | -   | B     | -   | -   | C     |
| HCM 95th %tile Q(veh) | 11.3     | 0.4   | -   | -   | 0.1   | -   | -   | 0.9   |

| Notes                      |                        |                            |  |  |  |  |  |  |                                |  |  |  |
|----------------------------|------------------------|----------------------------|--|--|--|--|--|--|--------------------------------|--|--|--|
| ~: Volume exceeds capacity | \$: Delay exceeds 300s | +: Computation Not Defined |  |  |  |  |  |  | *: All major volume in platoon |  |  |  |

| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.6                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 589                                                                               | 12   | 1    | 1039                                                                              | 17                                                                                | 4    |
| Future Vol, veh/h        | 589                                                                               | 12   | 1    | 1039                                                                              | 17                                                                                | 4    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 7                                                                                 | 11   | 0    | 2                                                                                 | 0                                                                                 | 33   |
| Mvmt Flow                | 640                                                                               | 13   | 1    | 1129                                                                              | 18                                                                                | 4    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |       |
|----------------------|--------|--------|--------|---|------|-------|
| Conflicting Flow All | 0      | 0      | 653    | 0 | 1778 | 647   |
| Stage 1              | -      | -      | -      | - | 647  | -     |
| Stage 2              | -      | -      | -      | - | 1131 | -     |
| Critical Hdwy        | -      | -      | 4.1    | - | 6.4  | 6.53  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.4  | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.4  | -     |
| Follow-up Hdwy       | -      | -      | 2.2    | - | 3.5  | 3.597 |
| Pot Cap-1 Maneuver   | -      | -      | 943    | - | 92   | 420   |
| Stage 1              | -      | -      | -      | - | 525  | -     |
| Stage 2              | -      | -      | -      | - | 311  | -     |
| Platoon blocked, %   | -      | -      | -      | - | -    | -     |
| Mov Cap-1 Maneuver   | -      | -      | 943    | - | 92   | 420   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 92   | -     |
| Stage 1              | -      | -      | -      | - | 525  | -     |
| Stage 2              | -      | -      | -      | - | 310  | -     |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 47.1 |
| HCM LOS              |    |    | E    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 108   | -   | -   | 943   | -   |
| HCM Lane V/C Ratio    | 0.211 | -   | -   | 0.001 | -   |
| HCM Control Delay (s) | 47.1  | -   | -   | 8.8   | 0   |
| HCM Lane LOS          | E     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.8   | -   | -   | 0     | -   |

| Intersection               |          |                        |        |                            |          |                                |
|----------------------------|----------|------------------------|--------|----------------------------|----------|--------------------------------|
| Int Delay, s/veh           | 65.3     |                        |        |                            |          |                                |
| Movement                   | EBT      | EBR                    | WBL    | WBT                        | NBL      | NBR                            |
| Lane Configurations        | ↑        | ↗                      | ↖      | ↑                          | ↘        |                                |
| Traffic Vol, veh/h         | 531      | 90                     | 53     | 1004                       | 105      | 70                             |
| Future Vol, veh/h          | 531      | 90                     | 53     | 1004                       | 105      | 70                             |
| Conflicting Peds, #/hr     | 0        | 0                      | 0      | 0                          | 0        | 0                              |
| Sign Control               | Free     | Free                   | Free   | Free                       | Stop     | Stop                           |
| RT Channelized             | -        | None                   | -      | None                       | -        | None                           |
| Storage Length             | -        | 200                    | 150    | -                          | 0        | -                              |
| Veh in Median Storage, #   | 0        | -                      | -      | 0                          | 0        | -                              |
| Grade, %                   | 0        | -                      | -      | 0                          | 0        | -                              |
| Peak Hour Factor           | 83       | 83                     | 83     | 83                         | 83       | 83                             |
| Heavy Vehicles, %          | 4        | 3                      | 3      | 2                          | 9        | 10                             |
| Mvmt Flow                  | 640      | 108                    | 64     | 1210                       | 127      | 84                             |
|                            |          |                        |        |                            |          |                                |
| Major/Minor                | Major1   |                        | Major2 |                            | Minor1   |                                |
| Conflicting Flow All       | 0        | 0                      | 748    | 0                          | 1978     | 640                            |
| Stage 1                    | -        | -                      | -      | -                          | 640      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 1338     | -                              |
| Critical Hdwy              | -        | -                      | 4.13   | -                          | 6.49     | 6.3                            |
| Critical Hdwy Stg 1        | -        | -                      | -      | -                          | 5.49     | -                              |
| Critical Hdwy Stg 2        | -        | -                      | -      | -                          | 5.49     | -                              |
| Follow-up Hdwy             | -        | -                      | 2.227  | -                          | 3.581    | 3.39                           |
| Pot Cap-1 Maneuver         | -        | -                      | 856    | -                          | ~ 65     | 461                            |
| Stage 1                    | -        | -                      | -      | -                          | 512      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 236      | -                              |
| Platoon blocked, %         | -        | -                      |        | -                          |          |                                |
| Mov Cap-1 Maneuver         | -        | -                      | 856    | -                          | ~ 60     | 461                            |
| Mov Cap-2 Maneuver         | -        | -                      | -      | -                          | ~ 60     | -                              |
| Stage 1                    | -        | -                      | -      | -                          | 512      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 218      | -                              |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Approach                   | EB       |                        | WB     |                            | NB       |                                |
| HCM Control Delay, s       | 0        |                        | 0.5    |                            | \$ 688.1 |                                |
| HCM LOS                    | F        |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Minor Lane/Major Mvmt      | NBLn1    | EBT                    | EBR    | WBL                        | WBT      |                                |
| Capacity (veh/h)           | 92       | -                      | -      | 856                        | -        |                                |
| HCM Lane V/C Ratio         | 2.292    | -                      | -      | 0.075                      | -        |                                |
| HCM Control Delay (s)      | \$ 688.1 | -                      | -      | 9.5                        | -        |                                |
| HCM Lane LOS               | F        | -                      | -      | A                          | -        |                                |
| HCM 95th %tile Q(veh)      | 19       | -                      | -      | 0.2                        | -        |                                |
| Notes                      |          |                        |        |                            |          |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |        | +: Computation Not Defined |          | *: All major volume in platoon |



| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 8.7                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |      |  |      |      |  |  |
| Traffic Vol, veh/h       | 38                                                                                | 569                                                                               | 4                                                                                 | 26                                                                                | 1077                                                                              | 5                                                                                 | 4    | 0                                                                                 | 37   | 15   | 1                                                                                 | 125                                                                               |
| Future Vol, veh/h        | 38                                                                                | 569                                                                               | 4                                                                                 | 26                                                                                | 1077                                                                              | 5                                                                                 | 4    | 0                                                                                 | 37   | 15   | 1                                                                                 | 125                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop | Stop                                                                              | Stop | Stop | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None                                                                              | -    | -                                                                                 | None | -    | -                                                                                 | None                                                                              |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 | -                                                                                 |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90   | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                |
| Heavy Vehicles, %        | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                | 42                                                                                | 632                                                                               | 4                                                                                 | 29                                                                                | 1197                                                                              | 6                                                                                 | 4    | 0                                                                                 | 41   | 17   | 1                                                                                 | 139                                                                               |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |      |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|------|
| Conflicting Flow All | 1203   | 0 | 0 | 636    | 0 | 0 | 2044   | 1977 | 316 | 1658   | 1978 | 1200 |
| Stage 1              | -      | - | - | -      | - | - | 716    | 716  | -   | 1258   | 1258 | -    |
| Stage 2              | -      | - | - | -      | - | - | 1328   | 1261 | -   | 400    | 720  | -    |
| Critical Hdwy        | 4.1    | - | - | 4.175  | - | - | 7.3    | 6.5  | 6.9 | 7.3    | 6.5  | 6.2  |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.1    | 5.5  | -    |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.1    | 5.5  | -   | 6.5    | 5.5  | -    |
| Follow-up Hdwy       | 2.2    | - | - | 2.2475 | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3  |
| Pot Cap-1 Maneuver   | 587    | - | - | 928    | - | - | 38     | 63   | 686 | 72     | 63   | 228  |
| Stage 1              | -      | - | - | -      | - | - | 392    | 437  | -   | 212    | 245  | -    |
| Stage 2              | -      | - | - | -      | - | - | 193    | 244  | -   | 603    | 435  | -    |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -   | -      | -    | -    |
| Mov Cap-1 Maneuver   | 587    | - | - | 928    | - | - | 13     | 57   | 686 | 62     | 57   | 228  |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 13     | 57   | -   | 62     | 57   | -    |
| Stage 1              | -      | - | - | -      | - | - | 364    | 406  | -   | 197    | 237  | -    |
| Stage 2              | -      | - | - | -      | - | - | 73     | 236  | -   | 526    | 404  | -    |

| Approach             | EB  |  |  | WB  |  |  | NB   |  |  | SB |  |  |
|----------------------|-----|--|--|-----|--|--|------|--|--|----|--|--|
| HCM Control Delay, s | 0.7 |  |  | 0.2 |  |  | 56.9 |  |  | 96 |  |  |
| HCM LOS              |     |  |  |     |  |  | F    |  |  | F  |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 113   | 587   | -   | -   | 928   | -   | -   | 175   |
| HCM Lane V/C Ratio    | 0.403 | 0.072 | -   | -   | 0.031 | -   | -   | 0.895 |
| HCM Control Delay (s) | 56.9  | 11.6  | -   | -   | 9     | -   | -   | 96    |
| HCM Lane LOS          | F     | B     | -   | -   | A     | -   | -   | F     |
| HCM 95th %tile Q(veh) | 1.7   | 0.2   | -   | -   | 0.1   | -   | -   | 6.6   |

| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.4                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 1183                                                                              | 17   | 0    | 531                                                                               | 10                                                                                | 0    |
| Future Vol, veh/h        | 1183                                                                              | 17   | 0    | 531                                                                               | 10                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                | 90   |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2    | 1                                                                                 | 14                                                                                | 2    |
| Mvmt Flow                | 1314                                                                              | 19   | 0    | 590                                                                               | 11                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1333   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 518    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 518    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 66.9 |
| HCM LOS              |    |    | F    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 69    | -   | -   | 518 | -   |
| HCM Lane V/C Ratio    | 0.161 | -   | -   | -   | -   |
| HCM Control Delay (s) | 66.9  | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.5   | -   | -   | 0   | -   |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 2.4    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑      | ↗    | ↖      | ↑     | ↘↗     |      |
| Traffic Vol, veh/h       | 1187   | 30   | 4      | 538   | 36     | 14   |
| Future Vol, veh/h        | 1187   | 30   | 4      | 538   | 36     | 14   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1290   | 33   | 4      | 585   | 39     | 15   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1323   | 0     | 1883   | 1290 |
| Stage 1                  | -      | -    | -      | -     | 1290   | -    |
| Stage 2                  | -      | -    | -      | -     | 593    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.4    | 6.2  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.4    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.4    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 529    | -     | 79     | 202  |
| Stage 1                  | -      | -    | -      | -     | 261    | -    |
| Stage 2                  | -      | -    | -      | -     | 556    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 529    | -     | 78     | 202  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 78     | -    |
| Stage 1                  | -      | -    | -      | -     | 261    | -    |
| Stage 2                  | -      | -    | -      | -     | 552    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.1    |       | 86.1   |      |
| HCM LOS                  |        |      |        |       | F      |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 94     | -    | -      | 529   | -      |      |
| HCM Lane V/C Ratio       | 0.578  | -    | -      | 0.008 | -      |      |
| HCM Control Delay (s)    | 86.1   | -    | -      | 11.9  | -      |      |
| HCM Lane LOS             | F      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 2.7    | -    | -      | 0     | -      |      |

| Intersection               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                |        |                                                                                   |      |        |                                                                                     |      |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------|--------|-----------------------------------------------------------------------------------|------|--------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh           | 45.1                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                |        |                                                                                   |      |        |                                                                                     |      |
| Movement                   | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                            | NBL    | NBT                                                                               | NBR  | SBL    | SBT                                                                                 | SBR  |
| Lane Configurations        |  |  |  |  |  |                                |        |  |      |        |  |      |
| Traffic Vol, veh/h         | 103                                                                               | 1103                                                                              | 44                                                                                | 23                                                                                | 549                                                                               | 1                              | 26     | 7                                                                                 | 111  | 2      | 2                                                                                   | 70   |
| Future Vol, veh/h          | 103                                                                               | 1103                                                                              | 44                                                                                | 23                                                                                | 549                                                                               | 1                              | 26     | 7                                                                                 | 111  | 2      | 2                                                                                   | 70   |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                              | 0      | 0                                                                                 | 0    | 0      | 0                                                                                   | 0    |
| Sign Control               | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                           | Stop   | Stop                                                                              | Stop | Stop   | Stop                                                                                | Stop |
| RT Channelized             | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None                           | -      | -                                                                                 | None | -      | -                                                                                   | None |
| Storage Length             | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -                              | -      | -                                                                                 | -    | -      | -                                                                                   | -    |
| Veh in Median Storage, #   | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                              | -      | 0                                                                                 | -    | -      | 0                                                                                   | -    |
| Grade, %                   | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                              | -      | 0                                                                                 | -    | -      | 0                                                                                   | -    |
| Peak Hour Factor           | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                             | 87     | 87                                                                                | 87   | 87     | 87                                                                                  | 87   |
| Heavy Vehicles, %          | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0                              | 0      | 0                                                                                 | 0    | 0      | 0                                                                                   | 0    |
| Mvmt Flow                  | 118                                                                               | 1268                                                                              | 51                                                                                | 26                                                                                | 631                                                                               | 1                              | 30     | 8                                                                                 | 128  | 2      | 2                                                                                   | 80   |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                |        |                                                                                   |      |        |                                                                                     |      |
| Major/Minor                | Major1                                                                            |                                                                                   |                                                                                   | Major2                                                                            |                                                                                   |                                | Minor1 |                                                                                   |      | Minor2 |                                                                                     |      |
| Conflicting Flow All       | 632                                                                               | 0                                                                                 | 0                                                                                 | 1319                                                                              | 0                                                                                 | 0                              | 2229   | 2188                                                                              | 634  | 1558   | 2239                                                                                | 632  |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | 1504   | 1504                                                                              | -    | 684    | 684                                                                                 | -    |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | 725    | 684                                                                               | -    | 874    | 1555                                                                                | -    |
| Critical Hdwy              | 4.115                                                                             | -                                                                                 | -                                                                                 | 4.1                                                                               | -                                                                                 | -                              | 7.3    | 6.5                                                                               | 6.9  | 7.3    | 6.5                                                                                 | 6.2  |
| Critical Hdwy Stg 1        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | 6.5    | 5.5                                                                               | -    | 6.1    | 5.5                                                                                 | -    |
| Critical Hdwy Stg 2        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | 6.1    | 5.5                                                                               | -    | 6.5    | 5.5                                                                                 | -    |
| Follow-up Hdwy             | 2.2095                                                                            | -                                                                                 | -                                                                                 | 2.2                                                                               | -                                                                                 | -                              | 3.5    | 4                                                                                 | 3.3  | 3.5    | 4                                                                                   | 3.3  |
| Pot Cap-1 Maneuver         | 955                                                                               | -                                                                                 | -                                                                                 | 531                                                                               | -                                                                                 | -                              | ~ 27   | 46                                                                                | 427  | 85     | 43                                                                                  | 484  |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | 130    | 186                                                                               | -    | 442    | 452                                                                                 | -    |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | 420    | 452                                                                               | -    | 315    | 176                                                                                 | -    |
| Platoon blocked, %         |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 | -                              |        |                                                                                   |      |        |                                                                                     |      |
| Mov Cap-1 Maneuver         | 955                                                                               | -                                                                                 | -                                                                                 | 531                                                                               | -                                                                                 | -                              | ~ 19   | 38                                                                                | 427  | 44     | 36                                                                                  | 484  |
| Mov Cap-2 Maneuver         | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | ~ 19   | 38                                                                                | -    | 44     | 36                                                                                  | -    |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | 114    | 163                                                                               | -    | 387    | 430                                                                                 | -    |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | 331    | 430                                                                               | -    | 184    | 154                                                                                 | -    |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                |        |                                                                                   |      |        |                                                                                     |      |
| Approach                   | EB                                                                                |                                                                                   |                                                                                   | WB                                                                                |                                                                                   |                                | NB     |                                                                                   |      | SB     |                                                                                     |      |
| HCM Control Delay, s       | 0.8                                                                               |                                                                                   |                                                                                   | 0.5                                                                               |                                                                                   |                                | \$ 619 |                                                                                   |      | 21.6   |                                                                                     |      |
| HCM LOS                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                | F      |                                                                                   |      | C      |                                                                                     |      |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                |        |                                                                                   |      |        |                                                                                     |      |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                            | WBR    | SBLn1                                                                             |      |        |                                                                                     |      |
| Capacity (veh/h)           | 79                                                                                | 955                                                                               | -                                                                                 | -                                                                                 | 531                                                                               | -                              | -      | 301                                                                               |      |        |                                                                                     |      |
| HCM Lane V/C Ratio         | 2.095                                                                             | 0.124                                                                             | -                                                                                 | -                                                                                 | 0.05                                                                              | -                              | -      | 0.283                                                                             |      |        |                                                                                     |      |
| HCM Control Delay (s)      | \$ 619                                                                            | 9.3                                                                               | -                                                                                 | -                                                                                 | 12.1                                                                              | -                              | -      | 21.6                                                                              |      |        |                                                                                     |      |
| HCM Lane LOS               | F                                                                                 | A                                                                                 | -                                                                                 | -                                                                                 | B                                                                                 | -                              | -      | C                                                                                 |      |        |                                                                                     |      |
| HCM 95th %tile Q(veh)      | 15                                                                                | 0.4                                                                               | -                                                                                 | -                                                                                 | 0.2                                                                               | -                              | -      | 1.1                                                                               |      |        |                                                                                     |      |
| Notes                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                |        |                                                                                   |      |        |                                                                                     |      |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s                                                            |                                                                                   | +: Computation Not Defined                                                        |                                                                                   | *: All major volume in platoon |        |                                                                                   |      |        |                                                                                     |      |



## APPENDIX K

### CAPACITY ANALYSIS REPORTS - BUILD CONDITIONS



| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.5                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 693                                                                               | 11   | 1    | 958                                                                               | 15                                                                                | 3    |
| Future Vol, veh/h        | 693                                                                               | 11   | 1    | 958                                                                               | 15                                                                                | 3    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 7                                                                                 | 11   | 0    | 2                                                                                 | 0                                                                                 | 33   |
| Mvmt Flow                | 753                                                                               | 12   | 1    | 1041                                                                              | 16                                                                                | 3    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |       |
|----------------------|--------|--------|--------|---|------|-------|
| Conflicting Flow All | 0      | 0      | 765    | 0 | 1802 | 759   |
| Stage 1              | -      | -      | -      | - | 759  | -     |
| Stage 2              | -      | -      | -      | - | 1043 | -     |
| Critical Hdwy        | -      | -      | 4.1    | - | 6.4  | 6.53  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.4  | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.4  | -     |
| Follow-up Hdwy       | -      | -      | 2.2    | - | 3.5  | 3.597 |
| Pot Cap-1 Maneuver   | -      | -      | 857    | - | 89   | 360   |
| Stage 1              | -      | -      | -      | - | 466  | -     |
| Stage 2              | -      | -      | -      | - | 342  | -     |
| Platoon blocked, %   | -      | -      | -      | - | -    | -     |
| Mov Cap-1 Maneuver   | -      | -      | 857    | - | 89   | 360   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 89   | -     |
| Stage 1              | -      | -      | -      | - | 466  | -     |
| Stage 2              | -      | -      | -      | - | 341  | -     |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 48.5 |
| HCM LOS              |    |    | E    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 102   | -   | -   | 857   | -   |
| HCM Lane V/C Ratio    | 0.192 | -   | -   | 0.001 | -   |
| HCM Control Delay (s) | 48.5  | -   | -   | 9.2   | 0   |
| HCM Lane LOS          | E     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.7   | -   | -   | 0     | -   |

| Intersection               |        |                        |        |                            |        |                                |
|----------------------------|--------|------------------------|--------|----------------------------|--------|--------------------------------|
| Int Delay, s/veh           | 61.8   |                        |        |                            |        |                                |
| Movement                   | EBT    | EBR                    | WBL    | WBT                        | NBL    | NBR                            |
| Lane Configurations        | ↑      | ↗                      | ↖      | ↑                          | ↘      |                                |
| Traffic Vol, veh/h         | 516    | 77                     | 82     | 1039                       | 90     | 72                             |
| Future Vol, veh/h          | 516    | 77                     | 82     | 1039                       | 90     | 72                             |
| Conflicting Peds, #/hr     | 0      | 0                      | 0      | 0                          | 0      | 0                              |
| Sign Control               | Free   | Free                   | Free   | Free                       | Stop   | Stop                           |
| RT Channelized             | -      | None                   | -      | None                       | -      | None                           |
| Storage Length             | -      | 200                    | 150    | -                          | 0      | -                              |
| Veh in Median Storage, #   | 0      | -                      | -      | 0                          | 0      | -                              |
| Grade, %                   | 0      | -                      | -      | 0                          | 0      | -                              |
| Peak Hour Factor           | 83     | 83                     | 83     | 83                         | 83     | 83                             |
| Heavy Vehicles, %          | 4      | 3                      | 3      | 2                          | 9      | 10                             |
| Mvmt Flow                  | 622    | 93                     | 99     | 1252                       | 108    | 87                             |
|                            |        |                        |        |                            |        |                                |
| Major/Minor                | Major1 |                        | Major2 |                            | Minor1 |                                |
| Conflicting Flow All       | 0      | 0                      | 715    | 0                          | 2072   | 622                            |
| Stage 1                    | -      | -                      | -      | -                          | 622    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 1450   | -                              |
| Critical Hdwy              | -      | -                      | 4.13   | -                          | 6.49   | 6.3                            |
| Critical Hdwy Stg 1        | -      | -                      | -      | -                          | 5.49   | -                              |
| Critical Hdwy Stg 2        | -      | -                      | -      | -                          | 5.49   | -                              |
| Follow-up Hdwy             | -      | -                      | 2.227  | -                          | 3.581  | 3.39                           |
| Pot Cap-1 Maneuver         | -      | -                      | 881    | -                          | ~ 57   | 472                            |
| Stage 1                    | -      | -                      | -      | -                          | 522    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 208    | -                              |
| Platoon blocked, %         | -      | -                      |        | -                          |        |                                |
| Mov Cap-1 Maneuver         | -      | -                      | 881    | -                          | ~ 51   | 472                            |
| Mov Cap-2 Maneuver         | -      | -                      | -      | -                          | ~ 51   | -                              |
| Stage 1                    | -      | -                      | -      | -                          | 522    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 185    | -                              |
|                            |        |                        |        |                            |        |                                |
| Approach                   | EB     |                        | WB     |                            | NB     |                                |
| HCM Control Delay, s       | 0      |                        | 0.7    |                            | \$ 711 |                                |
| HCM LOS                    | F      |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Minor Lane/Major Mvmt      | NBLn1  | EBT                    | EBR    | WBL                        | WBT    |                                |
| Capacity (veh/h)           | 84     | -                      | -      | 881                        | -      |                                |
| HCM Lane V/C Ratio         | 2.324  | -                      | -      | 0.112                      | -      |                                |
| HCM Control Delay (s)      | \$ 711 | -                      | -      | 9.6                        | -      |                                |
| HCM Lane LOS               | F      | -                      | -      | A                          | -      |                                |
| HCM 95th %tile Q(veh)      | 18     | -                      | -      | 0.4                        | -      |                                |
| Notes                      |        |                        |        |                            |        |                                |
| ~: Volume exceeds capacity |        | \$: Delay exceeds 300s |        | +: Computation Not Defined |        | *: All major volume in platoon |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 6.5                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |  |  |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 33                                                                                | 546                                                                               | 3                                                                                 | 28                                                                                | 1095                                                                              | 6    | 3    | 0                                                                                 | 34   | 14   | 1                                                                                   | 108  |
| Future Vol, veh/h        | 33                                                                                | 546                                                                               | 3                                                                                 | 28                                                                                | 1095                                                                              | 6    | 3    | 0                                                                                 | 34   | 14   | 1                                                                                   | 108  |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90   | 90   | 90                                                                                | 90   | 90   | 90                                                                                  | 90   |
| Heavy Vehicles, %        | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Mvmt Flow                | 37                                                                                | 607                                                                               | 3                                                                                 | 31                                                                                | 1217                                                                              | 7    | 3    | 0                                                                                 | 38   | 16   | 1                                                                                   | 120  |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |      |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|------|
| Conflicting Flow All | 1224   | 0 | 0 | 610    | 0 | 0 | 2024   | 1967 | 304 | 1661   | 1967 | 1221 |
| Stage 1              | -      | - | - | -      | - | - | 681    | 681  | -   | 1283   | 1283 | -    |
| Stage 2              | -      | - | - | -      | - | - | 1343   | 1286 | -   | 378    | 684  | -    |
| Critical Hdwy        | 4.1    | - | - | 4.175  | - | - | 7.3    | 6.5  | 6.9 | 7.3    | 6.5  | 6.2  |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.1    | 5.5  | -    |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.1    | 5.5  | -   | 6.5    | 5.5  | -    |
| Follow-up Hdwy       | 2.2    | - | - | 2.2475 | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3  |
| Pot Cap-1 Maneuver   | 577    | - | - | 949    | - | - | 39     | 64   | 698 | 71     | 64   | 221  |
| Stage 1              | -      | - | - | -      | - | - | 411    | 453  | -   | 205    | 238  | -    |
| Stage 2              | -      | - | - | -      | - | - | 189    | 237  | -   | 621    | 452  | -    |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -   | -      | -    | -    |
| Mov Cap-1 Maneuver   | 577    | - | - | 949    | - | - | 16     | 58   | 698 | 62     | 58   | 221  |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 16     | 58   | -   | 62     | 58   | -    |
| Stage 1              | -      | - | - | -      | - | - | 385    | 424  | -   | 192    | 230  | -    |
| Stage 2              | -      | - | - | -      | - | - | 83     | 229  | -   | 550    | 423  | -    |

| Approach             | EB  |  |  | WB  |  |  | NB   |  |  | SB   |  |  |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.7 |  |  | 0.2 |  |  | 35.9 |  |  | 82.5 |  |  |
| HCM LOS              |     |  |  |     |  |  | E    |  |  | F    |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 157   | 577   | -   | -   | 949   | -   | -   | 168   |
| HCM Lane V/C Ratio    | 0.262 | 0.064 | -   | -   | 0.033 | -   | -   | 0.813 |
| HCM Control Delay (s) | 35.9  | 11.7  | -   | -   | 8.9   | -   | -   | 82.5  |
| HCM Lane LOS          | E     | B     | -   | -   | A     | -   | -   | F     |
| HCM 95th %tile Q(veh) | 1     | 0.2   | -   | -   | 0.1   | -   | -   | 5.5   |



HCM 6th TWSC  
4: Driveway #1 & Old Cornelia Highway

2025 - Phase 1 Build Conditions  
AM Peak Hour

| Intersection               |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
|----------------------------|-----------------------------------------------------------------------------------|------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------|
| Int Delay, s/veh           | 210.2                                                                             |                        |        |                                                                                   |                                                                                   |                                |
| Movement                   | EBT                                                                               | EBR                    | WBL    | WBT                                                                               | NBL                                                                               | NBR                            |
| Lane Configurations        |  |                        |        |  |  |                                |
| Traffic Vol, veh/h         | 518                                                                               | 70                     | 62     | 911                                                                               | 210                                                                               | 185                            |
| Future Vol, veh/h          | 518                                                                               | 70                     | 62     | 911                                                                               | 210                                                                               | 185                            |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                      | 0      | 0                                                                                 | 0                                                                                 | 0                              |
| Sign Control               | Free                                                                              | Free                   | Free   | Free                                                                              | Stop                                                                              | Stop                           |
| RT Channelized             | -                                                                                 | None                   | -      | None                                                                              | -                                                                                 | None                           |
| Storage Length             | -                                                                                 | -                      | -      | -                                                                                 | 0                                                                                 | -                              |
| Veh in Median Storage, #   | 0                                                                                 | -                      | -      | 0                                                                                 | 0                                                                                 | -                              |
| Grade, %                   | 0                                                                                 | -                      | -      | 0                                                                                 | 0                                                                                 | -                              |
| Peak Hour Factor           | 92                                                                                | 92                     | 92     | 92                                                                                | 92                                                                                | 92                             |
| Heavy Vehicles, %          | 2                                                                                 | 2                      | 2      | 2                                                                                 | 2                                                                                 | 2                              |
| Mvmt Flow                  | 563                                                                               | 76                     | 67     | 990                                                                               | 228                                                                               | 201                            |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| Major/Minor                | Major1                                                                            |                        | Major2 |                                                                                   | Minor1                                                                            |                                |
| Conflicting Flow All       | 0                                                                                 | 0                      | 639    | 0                                                                                 | 1725                                                                              | 601                            |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 601                                                                               | -                              |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | 1124                                                                              | -                              |
| Critical Hdwy              | -                                                                                 | -                      | 4.12   | -                                                                                 | 6.42                                                                              | 6.22                           |
| Critical Hdwy Stg 1        | -                                                                                 | -                      | -      | -                                                                                 | 5.42                                                                              | -                              |
| Critical Hdwy Stg 2        | -                                                                                 | -                      | -      | -                                                                                 | 5.42                                                                              | -                              |
| Follow-up Hdwy             | -                                                                                 | -                      | 2.218  | -                                                                                 | 3.518                                                                             | 3.318                          |
| Pot Cap-1 Maneuver         | -                                                                                 | -                      | 945    | -                                                                                 | ~ 98                                                                              | 500                            |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 547                                                                               | -                              |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | 310                                                                               | -                              |
| Platoon blocked, %         | -                                                                                 | -                      | -      | -                                                                                 | -                                                                                 | -                              |
| Mov Cap-1 Maneuver         | -                                                                                 | -                      | 945    | -                                                                                 | ~ 83                                                                              | 500                            |
| Mov Cap-2 Maneuver         | -                                                                                 | -                      | -      | -                                                                                 | ~ 83                                                                              | -                              |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 547                                                                               | -                              |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | 261                                                                               | -                              |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| Approach                   | EB                                                                                |                        | WB     |                                                                                   | NB                                                                                |                                |
| HCM Control Delay, s       | 0                                                                                 |                        | 0.6    |                                                                                   | \$ 1039.4                                                                         |                                |
| HCM LOS                    |                                                                                   |                        |        |                                                                                   | F                                                                                 |                                |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBT                    | EBR    | WBL                                                                               | WBT                                                                               |                                |
| Capacity (veh/h)           | 136                                                                               | -                      | -      | 945                                                                               | -                                                                                 |                                |
| HCM Lane V/C Ratio         | 3.157                                                                             | -                      | -      | 0.071                                                                             | -                                                                                 |                                |
| HCM Control Delay (s)      | \$ 1039.4                                                                         | -                      | -      | 9.1                                                                               | 0                                                                                 |                                |
| HCM Lane LOS               | F                                                                                 | -                      | -      | A                                                                                 | A                                                                                 |                                |
| HCM 95th %tile Q(veh)      | 40.6                                                                              | -                      | -      | 0.2                                                                               | -                                                                                 |                                |
| Notes                      |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s |        | +: Computation Not Defined                                                        |                                                                                   | *: All major volume in platoon |

| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.3                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 1144                                                                              | 15   | 0    | 666                                                                               | 8                                                                                 | 0    |
| Future Vol, veh/h        | 1144                                                                              | 15   | 0    | 666                                                                               | 8                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                | 90   |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2    | 1                                                                                 | 14                                                                                | 2    |
| Mvmt Flow                | 1271                                                                              | 17   | 0    | 740                                                                               | 9                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1288   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | -      |
| Pot Cap-1 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 76.6 |
| HCM LOS              |    |    | F    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 59    | -   | -   | 538 | -   |
| HCM Lane V/C Ratio    | 0.151 | -   | -   | -   | -   |
| HCM Control Delay (s) | 76.6  | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.5   | -   | -   | 0   | -   |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 5.4                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 1219                                                                              | 25                                                                                | 27                                                                                | 580                                                                               | 31                                                                                | 52                                                                                |
| Future Vol, veh/h        | 1219                                                                              | 25                                                                                | 27                                                                                | 580                                                                               | 31                                                                                | 52                                                                                |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | -                                                                                 | 200                                                                               | 150                                                                               | -                                                                                 | 0                                                                                 | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                |
| Heavy Vehicles, %        | 9                                                                                 | 0                                                                                 | 0                                                                                 | 2                                                                                 | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                | 1325                                                                              | 27                                                                                | 29                                                                                | 630                                                                               | 34                                                                                | 57                                                                                |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor              | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   | Minor1                                                                            |                                                                                   |
| Conflicting Flow All     | 0                                                                                 | 0                                                                                 | 1352                                                                              | 0                                                                                 | 2013                                                                              | 1325                                                                              |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 1325                                                                              | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 688                                                                               | -                                                                                 |
| Critical Hdwy            | -                                                                                 | -                                                                                 | 4.1                                                                               | -                                                                                 | 6.4                                                                               | 6.2                                                                               |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 5.4                                                                               | -                                                                                 |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 5.4                                                                               | -                                                                                 |
| Follow-up Hdwy           | -                                                                                 | -                                                                                 | 2.2                                                                               | -                                                                                 | 3.5                                                                               | 3.3                                                                               |
| Pot Cap-1 Maneuver       | -                                                                                 | -                                                                                 | 516                                                                               | -                                                                                 | 65                                                                                | 192                                                                               |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 251                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 503                                                                               | -                                                                                 |
| Platoon blocked, %       | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 |                                                                                   |                                                                                   |
| Mov Cap-1 Maneuver       | -                                                                                 | -                                                                                 | 516                                                                               | -                                                                                 | 61                                                                                | 192                                                                               |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 61                                                                                | -                                                                                 |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 251                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 475                                                                               | -                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                 | EB                                                                                |                                                                                   | WB                                                                                |                                                                                   | NB                                                                                |                                                                                   |
| HCM Control Delay, s     | 0                                                                                 |                                                                                   | 0.6                                                                               |                                                                                   | 121.7                                                                             |                                                                                   |
| HCM LOS                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   | F                                                                                 |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               |                                                                                   |
| Capacity (veh/h)         | 107                                                                               | -                                                                                 | -                                                                                 | 516                                                                               | -                                                                                 |                                                                                   |
| HCM Lane V/C Ratio       | 0.843                                                                             | -                                                                                 | -                                                                                 | 0.057                                                                             | -                                                                                 |                                                                                   |
| HCM Control Delay (s)    | 121.7                                                                             | -                                                                                 | -                                                                                 | 12.4                                                                              | -                                                                                 |                                                                                   |
| HCM Lane LOS             | F                                                                                 | -                                                                                 | -                                                                                 | B                                                                                 | -                                                                                 |                                                                                   |
| HCM 95th %tile Q(veh)    | 4.9                                                                               | -                                                                                 | -                                                                                 | 0.2                                                                               | -                                                                                 |                                                                                   |

| Intersection               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |          |                                                                                   |                                |        |                                                                                   |                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|----------|-----------------------------------------------------------------------------------|--------------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh           | 34.9                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |          |                                                                                   |                                |        |                                                                                   |                                                                                   |
| Movement                   | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL      | NBT                                                                               | NBR                            | SBL    | SBT                                                                               | SBR                                                                               |
| Lane Configurations        |  |  |  |  |  |      |          |  |                                |        |  |  |
| Traffic Vol, veh/h         | 89                                                                                | 1138                                                                              | 38                                                                                | 24                                                                                | 584                                                                               | 3    | 22       | 6                                                                                 | 102                            | 4      | 2                                                                                 | 60                                                                                |
| Future Vol, veh/h          | 89                                                                                | 1138                                                                              | 38                                                                                | 24                                                                                | 584                                                                               | 3    | 22       | 6                                                                                 | 102                            | 4      | 2                                                                                 | 60                                                                                |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0        | 0                                                                                 | 0                              | 0      | 0                                                                                 | 0                                                                                 |
| Sign Control               | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop     | Stop                                                                              | Stop                           | Stop   | Stop                                                                              | Stop                                                                              |
| RT Channelized             | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -        | -                                                                                 | None                           | -      | -                                                                                 | None                                                                              |
| Storage Length             | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -        | -                                                                                 | -                              | -      | -                                                                                 | -                                                                                 |
| Veh in Median Storage, #   | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -        | 0                                                                                 | -                              | -      | 0                                                                                 | -                                                                                 |
| Grade, %                   | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -        | 0                                                                                 | -                              | -      | 0                                                                                 | -                                                                                 |
| Peak Hour Factor           | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87   | 87       | 87                                                                                | 87                             | 87     | 87                                                                                | 87                                                                                |
| Heavy Vehicles, %          | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0    | 0        | 0                                                                                 | 0                              | 0      | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                  | 102                                                                               | 1308                                                                              | 44                                                                                | 28                                                                                | 671                                                                               | 3    | 25       | 7                                                                                 | 117                            | 5      | 2                                                                                 | 69                                                                                |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |          |                                                                                   |                                |        |                                                                                   |                                                                                   |
| Major/Minor                | Major1                                                                            |                                                                                   |                                                                                   | Major2                                                                            |                                                                                   |      | Minor1   |                                                                                   |                                | Minor2 |                                                                                   |                                                                                   |
| Conflicting Flow All       | 674                                                                               | 0                                                                                 | 0                                                                                 | 1352                                                                              | 0                                                                                 | 0    | 2276     | 2242                                                                              | 654                            | 1591   | 2285                                                                              | 673                                                                               |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 1512     | 1512                                                                              | -                              | 729    | 729                                                                               | -                                                                                 |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 764      | 730                                                                               | -                              | 862    | 1556                                                                              | -                                                                                 |
| Critical Hdwy              | 4.115                                                                             | -                                                                                 | -                                                                                 | 4.1                                                                               | -                                                                                 | -    | 7.3      | 6.5                                                                               | 6.9                            | 7.3    | 6.5                                                                               | 6.2                                                                               |
| Critical Hdwy Stg 1        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.5      | 5.5                                                                               | -                              | 6.1    | 5.5                                                                               | -                                                                                 |
| Critical Hdwy Stg 2        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.1      | 5.5                                                                               | -                              | 6.5    | 5.5                                                                               | -                                                                                 |
| Follow-up Hdwy             | 2.2095                                                                            | -                                                                                 | -                                                                                 | 2.2                                                                               | -                                                                                 | -    | 3.5      | 4                                                                                 | 3.3                            | 3.5    | 4                                                                                 | 3.3                                                                               |
| Pot Cap-1 Maneuver         | 921                                                                               | -                                                                                 | -                                                                                 | 516                                                                               | -                                                                                 | -    | ~ 25     | 43                                                                                | 414                            | 80     | 40                                                                                | 459                                                                               |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 128      | 184                                                                               | -                              | 417    | 431                                                                               | -                                                                                 |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 399      | 431                                                                               | -                              | 320    | 176                                                                               | -                                                                                 |
| Platoon blocked, %         |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 | -    |          |                                                                                   |                                |        |                                                                                   |                                                                                   |
| Mov Cap-1 Maneuver         | 921                                                                               | -                                                                                 | -                                                                                 | 516                                                                               | -                                                                                 | -    | ~ 18     | 36                                                                                | 414                            | 43     | 34                                                                                | 459                                                                               |
| Mov Cap-2 Maneuver         | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | ~ 18     | 36                                                                                | -                              | 43     | 34                                                                                | -                                                                                 |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 114      | 164                                                                               | -                              | 371    | 408                                                                               | -                                                                                 |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 319      | 408                                                                               | -                              | 195    | 156                                                                               | -                                                                                 |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |          |                                                                                   |                                |        |                                                                                   |                                                                                   |
| Approach                   | EB                                                                                |                                                                                   |                                                                                   | WB                                                                                |                                                                                   |      | NB       |                                                                                   |                                | SB     |                                                                                   |                                                                                   |
| HCM Control Delay, s       | 0.7                                                                               |                                                                                   |                                                                                   | 0.5                                                                               |                                                                                   |      | \$ 532.3 |                                                                                   |                                | 27.6   |                                                                                   |                                                                                   |
| HCM LOS                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      | F        |                                                                                   |                                | D      |                                                                                   |                                                                                   |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |          |                                                                                   |                                |        |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT  | WBR      | SBLn1                                                                             |                                |        |                                                                                   |                                                                                   |
| Capacity (veh/h)           | 79                                                                                | 921                                                                               | -                                                                                 | -                                                                                 | 516                                                                               | -    | -        | 234                                                                               |                                |        |                                                                                   |                                                                                   |
| HCM Lane V/C Ratio         | 1.891                                                                             | 0.111                                                                             | -                                                                                 | -                                                                                 | 0.053                                                                             | -    | -        | 0.324                                                                             |                                |        |                                                                                   |                                                                                   |
| HCM Control Delay (s)      | \$ 532.3                                                                          | 9.4                                                                               | -                                                                                 | -                                                                                 | 12.4                                                                              | -    | -        | 27.6                                                                              |                                |        |                                                                                   |                                                                                   |
| HCM Lane LOS               | F                                                                                 | A                                                                                 | -                                                                                 | -                                                                                 | B                                                                                 | -    | -        | D                                                                                 |                                |        |                                                                                   |                                                                                   |
| HCM 95th %tile Q(veh)      | 13.1                                                                              | 0.4                                                                               | -                                                                                 | -                                                                                 | 0.2                                                                               | -    | -        | 1.3                                                                               |                                |        |                                                                                   |                                                                                   |
| Notes                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |          |                                                                                   |                                |        |                                                                                   |                                                                                   |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s                                                            |                                                                                   |                                                                                   | +: Computation Not Defined                                                        |      |          |                                                                                   | *: All major volume in platoon |        |                                                                                   |                                                                                   |



| Intersection               |                                                                                   |                        |       |                                                                                   |                                                                                   |                                |
|----------------------------|-----------------------------------------------------------------------------------|------------------------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------|
| Int Delay, s/veh           | 478.7                                                                             |                        |       |                                                                                   |                                                                                   |                                |
| Movement                   | EBT                                                                               | EBR                    | WBL   | WBT                                                                               | NBL                                                                               | NBR                            |
| Lane Configurations        |  |                        |       |  |  |                                |
| Traffic Vol, veh/h         | 1035                                                                              | 236                    | 208   | 466                                                                               | 141                                                                               | 124                            |
| Future Vol, veh/h          | 1035                                                                              | 236                    | 208   | 466                                                                               | 141                                                                               | 124                            |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                      | 0     | 0                                                                                 | 0                                                                                 | 0                              |
| Sign Control               | Free                                                                              | Free                   | Free  | Free                                                                              | Stop                                                                              | Stop                           |
| RT Channelized             | -                                                                                 | None                   | -     | None                                                                              | -                                                                                 | None                           |
| Storage Length             | -                                                                                 | -                      | -     | -                                                                                 | 0                                                                                 | -                              |
| Veh in Median Storage, #   | 0                                                                                 | -                      | -     | 0                                                                                 | 0                                                                                 | -                              |
| Grade, %                   | 0                                                                                 | -                      | -     | 0                                                                                 | 0                                                                                 | -                              |
| Peak Hour Factor           | 92                                                                                | 92                     | 92    | 92                                                                                | 92                                                                                | 92                             |
| Heavy Vehicles, %          | 2                                                                                 | 2                      | 2     | 2                                                                                 | 2                                                                                 | 2                              |
| Mvmt Flow                  | 1125                                                                              | 257                    | 226   | 507                                                                               | 153                                                                               | 135                            |
|                            |                                                                                   |                        |       |                                                                                   |                                                                                   |                                |
| Major/Minor                | Major1                                                                            | Major2                 |       | Minor1                                                                            |                                                                                   |                                |
| Conflicting Flow All       | 0                                                                                 | 0                      | 1382  | 0                                                                                 | 2213                                                                              | 1254                           |
| Stage 1                    | -                                                                                 | -                      | -     | -                                                                                 | 1254                                                                              | -                              |
| Stage 2                    | -                                                                                 | -                      | -     | -                                                                                 | 959                                                                               | -                              |
| Critical Hdwy              | -                                                                                 | -                      | 4.12  | -                                                                                 | 6.42                                                                              | 6.22                           |
| Critical Hdwy Stg 1        | -                                                                                 | -                      | -     | -                                                                                 | 5.42                                                                              | -                              |
| Critical Hdwy Stg 2        | -                                                                                 | -                      | -     | -                                                                                 | 5.42                                                                              | -                              |
| Follow-up Hdwy             | -                                                                                 | -                      | 2.218 | -                                                                                 | 3.518                                                                             | 3.318                          |
| Pot Cap-1 Maneuver         | -                                                                                 | -                      | 496   | -                                                                                 | ~ 48                                                                              | 210                            |
| Stage 1                    | -                                                                                 | -                      | -     | -                                                                                 | 269                                                                               | -                              |
| Stage 2                    | -                                                                                 | -                      | -     | -                                                                                 | 372                                                                               | -                              |
| Platoon blocked, %         | -                                                                                 | -                      | -     | -                                                                                 | -                                                                                 | -                              |
| Mov Cap-1 Maneuver         | -                                                                                 | -                      | 496   | -                                                                                 | ~ 18                                                                              | 210                            |
| Mov Cap-2 Maneuver         | -                                                                                 | -                      | -     | -                                                                                 | ~ 18                                                                              | -                              |
| Stage 1                    | -                                                                                 | -                      | -     | -                                                                                 | 269                                                                               | -                              |
| Stage 2                    | -                                                                                 | -                      | -     | -                                                                                 | ~ 136                                                                             | -                              |
|                            |                                                                                   |                        |       |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |       |                                                                                   |                                                                                   |                                |
| Approach                   | EB                                                                                | WB                     |       | NB                                                                                |                                                                                   |                                |
| HCM Control Delay, s       | 0                                                                                 | 5.6                    |       | \$ 3978.3                                                                         |                                                                                   |                                |
| HCM LOS                    | F                                                                                 |                        |       |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |       |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |       |                                                                                   |                                                                                   |                                |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBT                    | EBR   | WBL                                                                               | WBT                                                                               |                                |
| Capacity (veh/h)           | 31                                                                                | -                      | -     | 496                                                                               | -                                                                                 |                                |
| HCM Lane V/C Ratio         | 9.292                                                                             | -                      | -     | 0.456                                                                             | -                                                                                 |                                |
| HCM Control Delay (s)      | \$ 3978.3                                                                         | -                      | -     | 18.2                                                                              | 0                                                                                 |                                |
| HCM Lane LOS               | F                                                                                 | -                      | -     | C                                                                                 | A                                                                                 |                                |
| HCM 95th %tile Q(veh)      | 35.2                                                                              | -                      | -     | 2.3                                                                               | -                                                                                 |                                |
| Notes                      |                                                                                   |                        |       |                                                                                   |                                                                                   |                                |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s |       | +: Computation Not Defined                                                        |                                                                                   | *: All major volume in platoon |

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0.7                                                                               |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 779                                                                               | 11   | 1      | 1043                                                                              | 16                                                                                | 3     |
| Future Vol, veh/h        | 779                                                                               | 11   | 1      | 1043                                                                              | 16                                                                                | 3     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 7                                                                                 | 11   | 0      | 2                                                                                 | 0                                                                                 | 33    |
| Mvmt Flow                | 847                                                                               | 12   | 1      | 1134                                                                              | 17                                                                                | 3     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 859    | 0                                                                                 | 1989                                                                              | 853   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 853                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1136                                                                              | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.1    | -                                                                                 | 6.4                                                                               | 6.53  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.4                                                                               | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.4                                                                               | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.2    | -                                                                                 | 3.5                                                                               | 3.597 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 791    | -                                                                                 | 68                                                                                | 317   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 421                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 309                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 791    | -                                                                                 | 68                                                                                | 317   |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 68                                                                                | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 421                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 308                                                                               | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 67                                                                                |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | F                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 78                                                                                | -    | -      | 791                                                                               | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.265                                                                             | -    | -      | 0.001                                                                             | -                                                                                 |       |
| HCM Control Delay (s)    | 67                                                                                | -    | -      | 9.6                                                                               | 0                                                                                 |       |
| HCM Lane LOS             | F                                                                                 | -    | -      | A                                                                                 | A                                                                                 |       |
| HCM 95th %tile Q(veh)    | 1                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection               |           |                        |        |                            |           |                                |
|----------------------------|-----------|------------------------|--------|----------------------------|-----------|--------------------------------|
| Int Delay, s/veh           | 111       |                        |        |                            |           |                                |
| Movement                   | EBT       | EBR                    | WBL    | WBT                        | NBL       | NBR                            |
| Lane Configurations        | ↑         | ↗                      | ↖      | ↑                          | ↘         |                                |
| Traffic Vol, veh/h         | 567       | 83                     | 94     | 1150                       | 97        | 80                             |
| Future Vol, veh/h          | 567       | 83                     | 94     | 1150                       | 97        | 80                             |
| Conflicting Peds, #/hr     | 0         | 0                      | 0      | 0                          | 0         | 0                              |
| Sign Control               | Free      | Free                   | Free   | Free                       | Stop      | Stop                           |
| RT Channelized             | -         | None                   | -      | None                       | -         | None                           |
| Storage Length             | -         | 200                    | 150    | -                          | 0         | -                              |
| Veh in Median Storage, #   | 0         | -                      | -      | 0                          | 0         | -                              |
| Grade, %                   | 0         | -                      | -      | 0                          | 0         | -                              |
| Peak Hour Factor           | 83        | 83                     | 83     | 83                         | 83        | 83                             |
| Heavy Vehicles, %          | 4         | 3                      | 3      | 2                          | 9         | 10                             |
| Mvmt Flow                  | 683       | 100                    | 113    | 1386                       | 117       | 96                             |
|                            |           |                        |        |                            |           |                                |
| Major/Minor                | Major1    |                        | Major2 |                            | Minor1    |                                |
| Conflicting Flow All       | 0         | 0                      | 783    | 0                          | 2295      | 683                            |
| Stage 1                    | -         | -                      | -      | -                          | 683       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 1612      | -                              |
| Critical Hdwy              | -         | -                      | 4.13   | -                          | 6.49      | 6.3                            |
| Critical Hdwy Stg 1        | -         | -                      | -      | -                          | 5.49      | -                              |
| Critical Hdwy Stg 2        | -         | -                      | -      | -                          | 5.49      | -                              |
| Follow-up Hdwy             | -         | -                      | 2.227  | -                          | 3.581     | 3.39                           |
| Pot Cap-1 Maneuver         | -         | -                      | 831    | -                          | ~ 41      | 436                            |
| Stage 1                    | -         | -                      | -      | -                          | 489       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 173       | -                              |
| Platoon blocked, %         | -         | -                      |        | -                          |           |                                |
| Mov Cap-1 Maneuver         | -         | -                      | 831    | -                          | ~ 35      | 436                            |
| Mov Cap-2 Maneuver         | -         | -                      | -      | -                          | ~ 35      | -                              |
| Stage 1                    | -         | -                      | -      | -                          | 489       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 149       | -                              |
|                            |           |                        |        |                            |           |                                |
| Approach                   | EB        |                        | WB     |                            | NB        |                                |
| HCM Control Delay, s       | 0         |                        | 0.8    |                            | \$ 1292.6 |                                |
| HCM LOS                    |           |                        |        |                            | F         |                                |
|                            |           |                        |        |                            |           |                                |
| Minor Lane/Major Mvmt      | NBLn1     | EBT                    | EBR    | WBL                        | WBT       |                                |
| Capacity (veh/h)           | 60        | -                      | -      | 831                        | -         |                                |
| HCM Lane V/C Ratio         | 3.554     | -                      | -      | 0.136                      | -         |                                |
| HCM Control Delay (s)      | \$ 1292.6 | -                      | -      | 10                         | -         |                                |
| HCM Lane LOS               | F         | -                      | -      | B                          | -         |                                |
| HCM 95th %tile Q(veh)      | 22.7      | -                      | -      | 0.5                        | -         |                                |
| Notes                      |           |                        |        |                            |           |                                |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |        | +: Computation Not Defined |           | *: All major volume in platoon |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |        |      |                                                                                   |        |      |                                                                                     |                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|------|-----------------------------------------------------------------------------------|--------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh         | 12.3                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |        |      |                                                                                   |        |      |                                                                                     |                                                                                     |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR    | NBL  | NBT                                                                               | NBR    | SBL  | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations      |  |  |  |  |  |        |      |  |        |      |  |  |
| Traffic Vol, veh/h       | 35                                                                                | 599                                                                               | 3                                                                                 | 32                                                                                | 1208                                                                              | 8      | 3    | 0                                                                                 | 37     | 15   | 1                                                                                   | 116                                                                                 |
| Future Vol, veh/h        | 35                                                                                | 599                                                                               | 3                                                                                 | 32                                                                                | 1208                                                                              | 8      | 3    | 0                                                                                 | 37     | 15   | 1                                                                                   | 116                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0      | 0    | 0                                                                                 | 0      | 0    | 0                                                                                   | 0                                                                                   |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free   | Stop | Stop                                                                              | Stop   | Stop | Stop                                                                                | Stop                                                                                |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None   | -    | -                                                                                 | None   | -    | -                                                                                   | None                                                                                |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -      | -    | -                                                                                 | -      | -    | -                                                                                   | -                                                                                   |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -      | -    | 0                                                                                 | -      | -    | 0                                                                                   | -                                                                                   |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -      | -    | 0                                                                                 | -      | -    | 0                                                                                   | -                                                                                   |
| Peak Hour Factor         | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90     | 90   | 90                                                                                | 90     | 90   | 90                                                                                  | 90                                                                                  |
| Heavy Vehicles, %        | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0      | 0    | 0                                                                                 | 0      | 0    | 0                                                                                   | 0                                                                                   |
| Mvmt Flow                | 39                                                                                | 666                                                                               | 3                                                                                 | 36                                                                                | 1342                                                                              | 9      | 3    | 0                                                                                 | 41     | 17   | 1                                                                                   | 129                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |        |      |                                                                                   |        |      |                                                                                     |                                                                                     |
| Major/Minor              | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   | Minor1 |      |                                                                                   | Minor2 |      |                                                                                     |                                                                                     |
| Conflicting Flow All     | 1351                                                                              | 0                                                                                 | 0                                                                                 | 669                                                                               | 0                                                                                 | 0      | 2228 | 2167                                                                              | 333    | 1830 | 2166                                                                                | 1347                                                                                |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -      | 744  | 744                                                                               | -      | 1419 | 1419                                                                                | -                                                                                   |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -      | 1484 | 1423                                                                              | -      | 411  | 747                                                                                 | -                                                                                   |
| Critical Hdwy            | 4.1                                                                               | -                                                                                 | -                                                                                 | 4.175                                                                             | -                                                                                 | -      | 7.3  | 6.5                                                                               | 6.9    | 7.3  | 6.5                                                                                 | 6.2                                                                                 |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -      | 6.5  | 5.5                                                                               | -      | 6.1  | 5.5                                                                                 | -                                                                                   |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -      | 6.1  | 5.5                                                                               | -      | 6.5  | 5.5                                                                                 | -                                                                                   |
| Follow-up Hdwy           | 2.2                                                                               | -                                                                                 | -                                                                                 | 2.2475                                                                            | -                                                                                 | -      | 3.5  | 4                                                                                 | 3.3    | 3.5  | 4                                                                                   | 3.3                                                                                 |
| Pot Cap-1 Maneuver       | 516                                                                               | -                                                                                 | -                                                                                 | 902                                                                               | -                                                                                 | -      | 27   | 48                                                                                | 669    | 54   | 48                                                                                  | 187                                                                                 |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -      | 377  | 424                                                                               | -      | 171  | 205                                                                                 | -                                                                                   |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -      | 157  | 204                                                                               | -      | 594  | 423                                                                                 | -                                                                                   |
| Platoon blocked, %       |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 | -      |      |                                                                                   |        |      |                                                                                     |                                                                                     |
| Mov Cap-1 Maneuver       | 516                                                                               | -                                                                                 | -                                                                                 | 902                                                                               | -                                                                                 | -      | 8    | 43                                                                                | 669    | 46   | 43                                                                                  | 187                                                                                 |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -      | 8    | 43                                                                                | -      | 46   | 43                                                                                  | -                                                                                   |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -      | 348  | 392                                                                               | -      | 158  | 197                                                                                 | -                                                                                   |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -      | 47   | 196                                                                               | -      | 515  | 391                                                                                 | -                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |        |      |                                                                                   |        |      |                                                                                     |                                                                                     |
| Approach                 | EB                                                                                |                                                                                   | WB                                                                                |                                                                                   |                                                                                   | NB     |      |                                                                                   | SB     |      |                                                                                     |                                                                                     |
| HCM Control Delay, s     | 0.7                                                                               |                                                                                   | 0.2                                                                               |                                                                                   |                                                                                   | 75     |      |                                                                                   | 163.8  |      |                                                                                     |                                                                                     |
| HCM LOS                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | F      |      |                                                                                   | F      |      |                                                                                     |                                                                                     |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |        |      |                                                                                   |        |      |                                                                                     |                                                                                     |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT    | WBR  | SBLn1                                                                             |        |      |                                                                                     |                                                                                     |
| Capacity (veh/h)         | 93                                                                                | 516                                                                               | -                                                                                 | -                                                                                 | 902                                                                               | -      | -    | 136                                                                               |        |      |                                                                                     |                                                                                     |
| HCM Lane V/C Ratio       | 0.478                                                                             | 0.075                                                                             | -                                                                                 | -                                                                                 | 0.039                                                                             | -      | -    | 1.078                                                                             |        |      |                                                                                     |                                                                                     |
| HCM Control Delay (s)    | 75                                                                                | 12.5                                                                              | -                                                                                 | -                                                                                 | 9.2                                                                               | -      | -    | 163.8                                                                             |        |      |                                                                                     |                                                                                     |
| HCM Lane LOS             | F                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 | A                                                                                 | -      | -    | F                                                                                 |        |      |                                                                                     |                                                                                     |
| HCM 95th %tile Q(veh)    | 2.1                                                                               | 0.2                                                                               | -                                                                                 | -                                                                                 | 0.1                                                                               | -      | -    | 8.1                                                                               |        |      |                                                                                     |                                                                                     |



HCM 6th TWSC  
4: Driveway #1 & Old Cornelia Highway

2030 - Phase 2 Build Conditions  
AM Peak Hour

| Intersection               |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
|----------------------------|-----------------------------------------------------------------------------------|------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------|
| Int Delay, s/veh           | 468.1                                                                             |                        |        |                                                                                   |                                                                                   |                                |
| Movement                   | EBT                                                                               | EBR                    | WBL    | WBT                                                                               | NBL                                                                               | NBR                            |
| Lane Configurations        |  |                        |        |  |  |                                |
| Traffic Vol, veh/h         | 557                                                                               | 90                     | 80     | 979                                                                               | 265                                                                               | 233                            |
| Future Vol, veh/h          | 557                                                                               | 90                     | 80     | 979                                                                               | 265                                                                               | 233                            |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                      | 0      | 0                                                                                 | 0                                                                                 | 0                              |
| Sign Control               | Free                                                                              | Free                   | Free   | Free                                                                              | Stop                                                                              | Stop                           |
| RT Channelized             | -                                                                                 | None                   | -      | None                                                                              | -                                                                                 | None                           |
| Storage Length             | -                                                                                 | -                      | -      | -                                                                                 | 0                                                                                 | -                              |
| Veh in Median Storage, #   | 0                                                                                 | -                      | -      | 0                                                                                 | 0                                                                                 | -                              |
| Grade, %                   | 0                                                                                 | -                      | -      | 0                                                                                 | 0                                                                                 | -                              |
| Peak Hour Factor           | 92                                                                                | 92                     | 92     | 92                                                                                | 92                                                                                | 92                             |
| Heavy Vehicles, %          | 2                                                                                 | 2                      | 2      | 2                                                                                 | 2                                                                                 | 2                              |
| Mvmt Flow                  | 605                                                                               | 98                     | 87     | 1064                                                                              | 288                                                                               | 253                            |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| Major/Minor                | Major1                                                                            | Major2                 | Minor1 |                                                                                   |                                                                                   |                                |
| Conflicting Flow All       | 0                                                                                 | 0                      | 703    | 0                                                                                 | 1892                                                                              | 654                            |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 654                                                                               | -                              |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | 1238                                                                              | -                              |
| Critical Hdwy              | -                                                                                 | -                      | 4.12   | -                                                                                 | 6.42                                                                              | 6.22                           |
| Critical Hdwy Stg 1        | -                                                                                 | -                      | -      | -                                                                                 | 5.42                                                                              | -                              |
| Critical Hdwy Stg 2        | -                                                                                 | -                      | -      | -                                                                                 | 5.42                                                                              | -                              |
| Follow-up Hdwy             | -                                                                                 | -                      | 2.218  | -                                                                                 | 3.518                                                                             | 3.318                          |
| Pot Cap-1 Maneuver         | -                                                                                 | -                      | 895    | -                                                                                 | ~ 77                                                                              | 467                            |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 517                                                                               | -                              |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | ~ 274                                                                             | -                              |
| Platoon blocked, %         | -                                                                                 | -                      | -      | -                                                                                 | -                                                                                 | -                              |
| Mov Cap-1 Maneuver         | -                                                                                 | -                      | 895    | -                                                                                 | ~ 59                                                                              | 467                            |
| Mov Cap-2 Maneuver         | -                                                                                 | -                      | -      | -                                                                                 | ~ 59                                                                              | -                              |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 517                                                                               | -                              |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | ~ 209                                                                             | -                              |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| Approach                   | EB                                                                                | WB                     |        | NB                                                                                |                                                                                   |                                |
| HCM Control Delay, s       | 0                                                                                 | 0.7                    |        | \$ 2070.1                                                                         |                                                                                   |                                |
| HCM LOS                    | F                                                                                 |                        |        |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBT                    | EBR    | WBL                                                                               | WBT                                                                               |                                |
| Capacity (veh/h)           | 100                                                                               | -                      | -      | 895                                                                               | -                                                                                 |                                |
| HCM Lane V/C Ratio         | 5.413                                                                             | -                      | -      | 0.097                                                                             | -                                                                                 |                                |
| HCM Control Delay (s)      | \$ 2070.1                                                                         | -                      | -      | 9.5                                                                               | 0                                                                                 |                                |
| HCM Lane LOS               | F                                                                                 | -                      | -      | A                                                                                 | A                                                                                 |                                |
| HCM 95th %tile Q(veh)      | 58.6                                                                              | -                      | -      | 0.3                                                                               | -                                                                                 |                                |
| Notes                      |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s |        | +: Computation Not Defined                                                        |                                                                                   | *: All major volume in platoon |

| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.5                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 1251                                                                              | 16   | 0    | 745                                                                               | 9                                                                                 | 0    |
| Future Vol, veh/h        | 1251                                                                              | 16   | 0    | 745                                                                               | 9                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                | 90   |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2    | 1                                                                                 | 14                                                                                | 2    |
| Mvmt Flow                | 1390                                                                              | 18   | 0    | 828                                                                               | 10                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1408   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 485    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 485    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB    |
|----------------------|----|----|-------|
| HCM Control Delay, s | 0  | 0  | 109.4 |
| HCM LOS              |    |    | F     |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 44    | -   | -   | 485 | -   |
| HCM Lane V/C Ratio    | 0.227 | -   | -   | -   | -   |
| HCM Control Delay (s) | 109.4 | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.8   | -   | -   | 0   | -   |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 11.9   |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑      | ↗    | ↖      | ↑     | ↘↗     |      |
| Traffic Vol, veh/h       | 1339   | 27   | 33     | 644   | 33     | 62   |
| Future Vol, veh/h        | 1339   | 27   | 33     | 644   | 33     | 62   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1455   | 29   | 36     | 700   | 36     | 67   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1484   | 0     | 2227   | 1455 |
| Stage 1                  | -      | -    | -      | -     | 1455   | -    |
| Stage 2                  | -      | -    | -      | -     | 772    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.4    | 6.2  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.4    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.4    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 459    | -     | 48     | 161  |
| Stage 1                  | -      | -    | -      | -     | 217    | -    |
| Stage 2                  | -      | -    | -      | -     | 459    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 459    | -     | 44     | 161  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 44     | -    |
| Stage 1                  | -      | -    | -      | -     | 217    | -    |
| Stage 2                  | -      | -    | -      | -     | 423    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.7    |       | 261.8  |      |
| HCM LOS                  |        |      |        |       | F      |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 84     | -    | -      | 459   | -      |      |
| HCM Lane V/C Ratio       | 1.229  | -    | -      | 0.078 | -      |      |
| HCM Control Delay (s)    | 261.8  | -    | -      | 13.5  | -      |      |
| HCM Lane LOS             | F      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 7.5    | -    | -      | 0.3   | -      |      |

| Intersection               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                |           |                                                                                   |      |        |                                                                                   |                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------|-----------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh           | 73.5                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                |           |                                                                                   |      |        |                                                                                   |                                                                                   |
| Movement                   | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                            | NBL       | NBT                                                                               | NBR  | SBL    | SBT                                                                               | SBR                                                                               |
| Lane Configurations        |  |  |  |  |  |                                |           |  |      |        |  |  |
| Traffic Vol, veh/h         | 96                                                                                | 1250                                                                              | 41                                                                                | 27                                                                                | 647                                                                               | 3                              | 24        | 7                                                                                 | 112  | 5      | 2                                                                                 | 65                                                                                |
| Future Vol, veh/h          | 96                                                                                | 1250                                                                              | 41                                                                                | 27                                                                                | 647                                                                               | 3                              | 24        | 7                                                                                 | 112  | 5      | 2                                                                                 | 65                                                                                |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                              | 0         | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 |
| Sign Control               | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                           | Stop      | Stop                                                                              | Stop | Stop   | Stop                                                                              | Stop                                                                              |
| RT Channelized             | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None                           | -         | -                                                                                 | None | -      | -                                                                                 | None                                                                              |
| Storage Length             | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -                              | -         | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 |
| Veh in Median Storage, #   | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                              | -         | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |
| Grade, %                   | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                              | -         | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |
| Peak Hour Factor           | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                             | 87        | 87                                                                                | 87   | 87     | 87                                                                                | 87                                                                                |
| Heavy Vehicles, %          | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0                              | 0         | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                  | 110                                                                               | 1437                                                                              | 47                                                                                | 31                                                                                | 744                                                                               | 3                              | 28        | 8                                                                                 | 129  | 6      | 2                                                                                 | 75                                                                                |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                |           |                                                                                   |      |        |                                                                                   |                                                                                   |
| Major/Minor                | Major1                                                                            |                                                                                   |                                                                                   | Major2                                                                            |                                                                                   |                                | Minor1    |                                                                                   |      | Minor2 |                                                                                   |                                                                                   |
| Conflicting Flow All       | 747                                                                               | 0                                                                                 | 0                                                                                 | 1484                                                                              | 0                                                                                 | 0                              | 2503      | 2466                                                                              | 719  | 1751   | 2512                                                                              | 746                                                                               |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | 1657      | 1657                                                                              | -    | 808    | 808                                                                               | -                                                                                 |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | 846       | 809                                                                               | -    | 943    | 1704                                                                              | -                                                                                 |
| Critical Hdwy              | 4.115                                                                             | -                                                                                 | -                                                                                 | 4.1                                                                               | -                                                                                 | -                              | 7.3       | 6.5                                                                               | 6.9  | 7.3    | 6.5                                                                               | 6.2                                                                               |
| Critical Hdwy Stg 1        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | 6.5       | 5.5                                                                               | -    | 6.1    | 5.5                                                                               | -                                                                                 |
| Critical Hdwy Stg 2        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | 6.1       | 5.5                                                                               | -    | 6.5    | 5.5                                                                               | -                                                                                 |
| Follow-up Hdwy             | 2.2095                                                                            | -                                                                                 | -                                                                                 | 2.2                                                                               | -                                                                                 | -                              | 3.5       | 4                                                                                 | 3.3  | 3.5    | 4                                                                                 | 3.3                                                                               |
| Pot Cap-1 Maneuver         | 865                                                                               | -                                                                                 | -                                                                                 | 459                                                                               | -                                                                                 | -                              | ~ 17      | 31                                                                                | 375  | 61     | 29                                                                                | 417                                                                               |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | 104       | 157                                                                               | -    | 378    | 397                                                                               | -                                                                                 |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | 360       | 396                                                                               | -    | 286    | 149                                                                               | -                                                                                 |
| Platoon blocked, %         |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 | -                              |           |                                                                                   |      |        |                                                                                   |                                                                                   |
| Mov Cap-1 Maneuver         | 865                                                                               | -                                                                                 | -                                                                                 | 459                                                                               | -                                                                                 | -                              | ~ 11      | 25                                                                                | 375  | 26     | 24                                                                                | 417                                                                               |
| Mov Cap-2 Maneuver         | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | ~ 11      | 25                                                                                | -    | 26     | 24                                                                                | -                                                                                 |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | 91        | 137                                                                               | -    | 330    | 370                                                                               | -                                                                                 |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | 274       | 369                                                                               | -    | 154    | 130                                                                               | -                                                                                 |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                |           |                                                                                   |      |        |                                                                                   |                                                                                   |
| Approach                   | EB                                                                                |                                                                                   |                                                                                   | WB                                                                                |                                                                                   |                                | NB        |                                                                                   |      | SB     |                                                                                   |                                                                                   |
| HCM Control Delay, s       | 0.7                                                                               |                                                                                   |                                                                                   | 0.5                                                                               |                                                                                   |                                | \$ 1139.1 |                                                                                   |      | 46.1   |                                                                                   |                                                                                   |
| HCM LOS                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                | F         |                                                                                   |      | E      |                                                                                   |                                                                                   |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                |           |                                                                                   |      |        |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                            | WBR       | SBLn1                                                                             |      |        |                                                                                   |                                                                                   |
| Capacity (veh/h)           | 52                                                                                | 865                                                                               | -                                                                                 | -                                                                                 | 459                                                                               | -                              | -         | 167                                                                               |      |        |                                                                                   |                                                                                   |
| HCM Lane V/C Ratio         | 3.161                                                                             | 0.128                                                                             | -                                                                                 | -                                                                                 | 0.068                                                                             | -                              | -         | 0.496                                                                             |      |        |                                                                                   |                                                                                   |
| HCM Control Delay (s)      | \$ 1139.1                                                                         | 9.8                                                                               | -                                                                                 | -                                                                                 | 13.4                                                                              | -                              | -         | 46.1                                                                              |      |        |                                                                                   |                                                                                   |
| HCM Lane LOS               | F                                                                                 | A                                                                                 | -                                                                                 | -                                                                                 | B                                                                                 | -                              | -         | E                                                                                 |      |        |                                                                                   |                                                                                   |
| HCM 95th %tile Q(veh)      | 17.6                                                                              | 0.4                                                                               | -                                                                                 | -                                                                                 | 0.2                                                                               | -                              | -         | 2.4                                                                               |      |        |                                                                                   |                                                                                   |
| Notes                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                |           |                                                                                   |      |        |                                                                                   |                                                                                   |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s                                                            |                                                                                   | +: Computation Not Defined                                                        |                                                                                   | *: All major volume in platoon |           |                                                                                   |      |        |                                                                                   |                                                                                   |



| Intersection               |                                                                                   |                        |        |                                                                                   |            |                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------|------------------------|--------|-----------------------------------------------------------------------------------|------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh           | 3675                                                                              |                        |        |                                                                                   |            |                                                                                   |
| Movement                   | EBT                                                                               | EBR                    | WBL    | WBT                                                                               | NBL        | NBR                                                                               |
| Lane Configurations        |  |                        |        |  |            |  |
| Traffic Vol, veh/h         | 1113                                                                              | 288                    | 253    | 501                                                                               | 176        | 154                                                                               |
| Future Vol, veh/h          | 1113                                                                              | 288                    | 253    | 501                                                                               | 176        | 154                                                                               |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                      | 0      | 0                                                                                 | 0          | 0                                                                                 |
| Sign Control               | Free                                                                              | Free                   | Free   | Free                                                                              | Stop       | Stop                                                                              |
| RT Channelized             | -                                                                                 | None                   | -      | None                                                                              | -          | None                                                                              |
| Storage Length             | -                                                                                 | -                      | -      | -                                                                                 | 0          | -                                                                                 |
| Veh in Median Storage, #   | 0                                                                                 | -                      | -      | 0                                                                                 | 0          | -                                                                                 |
| Grade, %                   | 0                                                                                 | -                      | -      | 0                                                                                 | 0          | -                                                                                 |
| Peak Hour Factor           | 92                                                                                | 92                     | 92     | 92                                                                                | 92         | 92                                                                                |
| Heavy Vehicles, %          | 2                                                                                 | 2                      | 2      | 2                                                                                 | 2          | 2                                                                                 |
| Mvmt Flow                  | 1210                                                                              | 313                    | 275    | 545                                                                               | 191        | 167                                                                               |
|                            |                                                                                   |                        |        |                                                                                   |            |                                                                                   |
| Major/Minor                | Major1                                                                            |                        | Major2 |                                                                                   | Minor1     |                                                                                   |
| Conflicting Flow All       | 0                                                                                 | 0                      | 1523   | 0                                                                                 | 2462       | 1367                                                                              |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 1367       | -                                                                                 |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | 1095       | -                                                                                 |
| Critical Hdwy              | -                                                                                 | -                      | 4.12   | -                                                                                 | 6.42       | 6.22                                                                              |
| Critical Hdwy Stg 1        | -                                                                                 | -                      | -      | -                                                                                 | 5.42       | -                                                                                 |
| Critical Hdwy Stg 2        | -                                                                                 | -                      | -      | -                                                                                 | 5.42       | -                                                                                 |
| Follow-up Hdwy             | -                                                                                 | -                      | 2.218  | -                                                                                 | 3.518      | 3.318                                                                             |
| Pot Cap-1 Maneuver         | -                                                                                 | -                      | 438    | -                                                                                 | ~ 34       | 180                                                                               |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 237        | -                                                                                 |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | 321        | -                                                                                 |
| Platoon blocked, %         | -                                                                                 | -                      |        | -                                                                                 |            |                                                                                   |
| Mov Cap-1 Maneuver         | -                                                                                 | -                      | 438    | -                                                                                 | ~ 3        | 180                                                                               |
| Mov Cap-2 Maneuver         | -                                                                                 | -                      | -      | -                                                                                 | ~ 3        | -                                                                                 |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 237        | -                                                                                 |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | ~ 32       | -                                                                                 |
|                            |                                                                                   |                        |        |                                                                                   |            |                                                                                   |
|                            |                                                                                   |                        |        |                                                                                   |            |                                                                                   |
| Approach                   | EB                                                                                |                        | WB     |                                                                                   | NB         |                                                                                   |
| HCM Control Delay, s       | 0                                                                                 |                        | 8.8    |                                                                                   | \$ 27653.9 |                                                                                   |
| HCM LOS                    |                                                                                   |                        |        |                                                                                   | F          |                                                                                   |
|                            |                                                                                   |                        |        |                                                                                   |            |                                                                                   |
|                            |                                                                                   |                        |        |                                                                                   |            |                                                                                   |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBT                    | EBR    | WBL                                                                               | WBT        |                                                                                   |
| Capacity (veh/h)           | 6                                                                                 | -                      | -      | 438                                                                               | -          |                                                                                   |
| HCM Lane V/C Ratio         | 59.783                                                                            | -                      | -      | 0.628                                                                             | -          |                                                                                   |
| HCM Control Delay (s)      | \$ 27653.9                                                                        | -                      | -      | 26.1                                                                              | 0          |                                                                                   |
| HCM Lane LOS               | F                                                                                 | -                      | -      | D                                                                                 | A          |                                                                                   |
| HCM 95th %tile Q(veh)      | 47                                                                                | -                      | -      | 4.2                                                                               | -          |                                                                                   |
| Notes                      |                                                                                   |                        |        |                                                                                   |            |                                                                                   |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s |        | +: Computation Not Defined                                                        |            | *: All major volume in platoon                                                    |

| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 1                                                                                 |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 879                                                                               | 12   | 1    | 1137                                                                              | 17                                                                                | 4    |
| Future Vol, veh/h        | 879                                                                               | 12   | 1    | 1137                                                                              | 17                                                                                | 4    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 7                                                                                 | 11   | 0    | 2                                                                                 | 0                                                                                 | 33   |
| Mvmt Flow                | 955                                                                               | 13   | 1    | 1236                                                                              | 18                                                                                | 4    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 968    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.1    |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.2    |
| Pot Cap-1 Maneuver   | -      | -      | 720    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 720    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB    |
|----------------------|----|----|-------|
| HCM Control Delay, s | 0  | 0  | 100.3 |
| HCM LOS              |    |    | F     |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 59    | -   | -   | 720   | -   |
| HCM Lane V/C Ratio    | 0.387 | -   | -   | 0.002 | -   |
| HCM Control Delay (s) | 100.3 | -   | -   | 10    | 0   |
| HCM Lane LOS          | F     | -   | -   | B     | A   |
| HCM 95th %tile Q(veh) | 1.4   | -   | -   | 0     | -   |

| Intersection               |           |                        |       |                            |       |                                |
|----------------------------|-----------|------------------------|-------|----------------------------|-------|--------------------------------|
| Int Delay, s/veh           | 195.9     |                        |       |                            |       |                                |
| Movement                   | EBT       | EBR                    | WBL   | WBT                        | NBL   | NBR                            |
| Lane Configurations        | ↑         | ↗                      | ↖     | ↑                          | ↘     |                                |
| Traffic Vol, veh/h         | 623       | 90                     | 109   | 1277                       | 105   | 89                             |
| Future Vol, veh/h          | 623       | 90                     | 109   | 1277                       | 105   | 89                             |
| Conflicting Peds, #/hr     | 0         | 0                      | 0     | 0                          | 0     | 0                              |
| Sign Control               | Free      | Free                   | Free  | Free                       | Stop  | Stop                           |
| RT Channelized             | -         | None                   | -     | None                       | -     | None                           |
| Storage Length             | -         | 200                    | 150   | -                          | 0     | -                              |
| Veh in Median Storage, #   | 0         | -                      | -     | 0                          | 0     | -                              |
| Grade, %                   | 0         | -                      | -     | 0                          | 0     | -                              |
| Peak Hour Factor           | 83        | 83                     | 83    | 83                         | 83    | 83                             |
| Heavy Vehicles, %          | 4         | 3                      | 3     | 2                          | 9     | 10                             |
| Mvmt Flow                  | 751       | 108                    | 131   | 1539                       | 127   | 107                            |
|                            |           |                        |       |                            |       |                                |
| Major/Minor                | Major1    | Major2                 |       | Minor1                     |       |                                |
| Conflicting Flow All       | 0         | 0                      | 859   | 0                          | 2552  | 751                            |
| Stage 1                    | -         | -                      | -     | -                          | 751   | -                              |
| Stage 2                    | -         | -                      | -     | -                          | 1801  | -                              |
| Critical Hdwy              | -         | -                      | 4.13  | -                          | 6.49  | 6.3                            |
| Critical Hdwy Stg 1        | -         | -                      | -     | -                          | 5.49  | -                              |
| Critical Hdwy Stg 2        | -         | -                      | -     | -                          | 5.49  | -                              |
| Follow-up Hdwy             | -         | -                      | 2.227 | -                          | 3.581 | 3.39                           |
| Pot Cap-1 Maneuver         | -         | -                      | 778   | -                          | ~ 28  | 398                            |
| Stage 1                    | -         | -                      | -     | -                          | 454   | -                              |
| Stage 2                    | -         | -                      | -     | -                          | 139   | -                              |
| Platoon blocked, %         | -         | -                      | -     | -                          | -     | -                              |
| Mov Cap-1 Maneuver         | -         | -                      | 778   | -                          | ~ 23  | 398                            |
| Mov Cap-2 Maneuver         | -         | -                      | -     | -                          | ~ 23  | -                              |
| Stage 1                    | -         | -                      | -     | -                          | 454   | -                              |
| Stage 2                    | -         | -                      | -     | -                          | ~ 116 | -                              |
|                            |           |                        |       |                            |       |                                |
|                            |           |                        |       |                            |       |                                |
| Approach                   | EB        | WB                     |       | NB                         |       |                                |
| HCM Control Delay, s       | 0         | 0.8                    |       | \$ 2309.8                  |       |                                |
| HCM LOS                    | F         |                        |       |                            |       |                                |
|                            |           |                        |       |                            |       |                                |
|                            |           |                        |       |                            |       |                                |
| Minor Lane/Major Mvmt      | NBLn1     | EBT                    | EBR   | WBL                        | WBT   |                                |
| Capacity (veh/h)           | 41        | -                      | -     | 778                        | -     |                                |
| HCM Lane V/C Ratio         | 5.701     | -                      | -     | 0.169                      | -     |                                |
| HCM Control Delay (s)      | \$ 2309.8 | -                      | -     | 10.6                       | -     |                                |
| HCM Lane LOS               | F         | -                      | -     | B                          | -     |                                |
| HCM 95th %tile Q(veh)      | 27.3      | -                      | -     | 0.6                        | -     |                                |
| Notes                      |           |                        |       |                            |       |                                |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |       | +: Computation Not Defined |       | *: All major volume in platoon |

| Intersection               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |          |                                                                                   |                                |          |                                                                                   |                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|----------|-----------------------------------------------------------------------------------|--------------------------------|----------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh           | 40.7                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |          |                                                                                   |                                |          |                                                                                   |                                                                                   |
| Movement                   | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL      | NBT                                                                               | NBR                            | SBL      | SBT                                                                               | SBR                                                                               |
| Lane Configurations        |  |  |  |  |  |      |          |  |                                |          |  |  |
| Traffic Vol, veh/h         | 38                                                                                | 657                                                                               | 4                                                                                 | 36                                                                                | 1337                                                                              | 8    | 4        | 0                                                                                 | 40                             | 16       | 1                                                                                 | 125                                                                               |
| Future Vol, veh/h          | 38                                                                                | 657                                                                               | 4                                                                                 | 36                                                                                | 1337                                                                              | 8    | 4        | 0                                                                                 | 40                             | 16       | 1                                                                                 | 125                                                                               |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0        | 0                                                                                 | 0                              | 0        | 0                                                                                 | 0                                                                                 |
| Sign Control               | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop     | Stop                                                                              | Stop                           | Stop     | Stop                                                                              | Stop                                                                              |
| RT Channelized             | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -        | -                                                                                 | None                           | -        | -                                                                                 | None                                                                              |
| Storage Length             | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -        | -                                                                                 | -                              | -        | -                                                                                 | -                                                                                 |
| Veh in Median Storage, #   | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -        | 0                                                                                 | -                              | -        | 0                                                                                 | -                                                                                 |
| Grade, %                   | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -        | 0                                                                                 | -                              | -        | 0                                                                                 | -                                                                                 |
| Peak Hour Factor           | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90   | 90       | 90                                                                                | 90                             | 90       | 90                                                                                | 90                                                                                |
| Heavy Vehicles, %          | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0    | 0        | 0                                                                                 | 0                              | 0        | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                  | 42                                                                                | 730                                                                               | 4                                                                                 | 40                                                                                | 1486                                                                              | 9    | 4        | 0                                                                                 | 44                             | 18       | 1                                                                                 | 139                                                                               |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |          |                                                                                   |                                |          |                                                                                   |                                                                                   |
| Major/Minor                | Major1                                                                            |                                                                                   |                                                                                   | Major2                                                                            |                                                                                   |      | Minor1   |                                                                                   |                                | Minor2   |                                                                                   |                                                                                   |
| Conflicting Flow All       | 1495                                                                              | 0                                                                                 | 0                                                                                 | 734                                                                               | 0                                                                                 | 0    | 2455     | 2389                                                                              | 365                            | 2020     | 2389                                                                              | 1491                                                                              |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 814      | 814                                                                               | -                              | 1571     | 1571                                                                              | -                                                                                 |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 1641     | 1575                                                                              | -                              | 449      | 818                                                                               | -                                                                                 |
| Critical Hdwy              | 4.1                                                                               | -                                                                                 | -                                                                                 | 4.175                                                                             | -                                                                                 | -    | 7.3      | 6.5                                                                               | 6.9                            | 7.3      | 6.5                                                                               | 6.2                                                                               |
| Critical Hdwy Stg 1        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.5      | 5.5                                                                               | -                              | 6.1      | 5.5                                                                               | -                                                                                 |
| Critical Hdwy Stg 2        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.1      | 5.5                                                                               | -                              | 6.5      | 5.5                                                                               | -                                                                                 |
| Follow-up Hdwy             | 2.2                                                                               | -                                                                                 | -                                                                                 | 2.2475                                                                            | -                                                                                 | -    | 3.5      | 4                                                                                 | 3.3                            | 3.5      | 4                                                                                 | 3.3                                                                               |
| Pot Cap-1 Maneuver         | 455                                                                               | -                                                                                 | -                                                                                 | 852                                                                               | -                                                                                 | -    | 19       | 34                                                                                | 638                            | 39       | 34                                                                                | 153                                                                               |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 342      | 394                                                                               | -                              | 140      | 173                                                                               | -                                                                                 |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 128      | 172                                                                               | -                              | 564      | 393                                                                               | -                                                                                 |
| Platoon blocked, %         |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 | -    |          |                                                                                   |                                |          |                                                                                   |                                                                                   |
| Mov Cap-1 Maneuver         | 455                                                                               | -                                                                                 | -                                                                                 | 852                                                                               | -                                                                                 | -    | ~ 2      | 29                                                                                | 638                            | 33       | 29                                                                                | 153                                                                               |
| Mov Cap-2 Maneuver         | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | ~ 2      | 29                                                                                | -                              | 33       | 29                                                                                | -                                                                                 |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 311      | 358                                                                               | -                              | 127      | 165                                                                               | -                                                                                 |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 11       | 164                                                                               | -                              | 476      | 357                                                                               | -                                                                                 |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |          |                                                                                   |                                |          |                                                                                   |                                                                                   |
| Approach                   | EB                                                                                |                                                                                   |                                                                                   | WB                                                                                |                                                                                   |      | NB       |                                                                                   |                                | SB       |                                                                                   |                                                                                   |
| HCM Control Delay, s       | 0.7                                                                               |                                                                                   |                                                                                   | 0.2                                                                               |                                                                                   |      | \$ 993.8 |                                                                                   |                                | \$ 335.5 |                                                                                   |                                                                                   |
| HCM LOS                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      | F        |                                                                                   |                                | F        |                                                                                   |                                                                                   |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |          |                                                                                   |                                |          |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT  | WBR      | SBLn1                                                                             |                                |          |                                                                                   |                                                                                   |
| Capacity (veh/h)           | 21                                                                                | 455                                                                               | -                                                                                 | -                                                                                 | 852                                                                               | -    | -        | 106                                                                               |                                |          |                                                                                   |                                                                                   |
| HCM Lane V/C Ratio         | 2.328                                                                             | 0.093                                                                             | -                                                                                 | -                                                                                 | 0.047                                                                             | -    | -        | 1.488                                                                             |                                |          |                                                                                   |                                                                                   |
| HCM Control Delay (s)      | \$ 993.8                                                                          | 13.7                                                                              | -                                                                                 | -                                                                                 | 9.4                                                                               | -    | -        | \$ 335.5                                                                          |                                |          |                                                                                   |                                                                                   |
| HCM Lane LOS               | F                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 | A                                                                                 | -    | -        | F                                                                                 |                                |          |                                                                                   |                                                                                   |
| HCM 95th %tile Q(veh)      | 6.4                                                                               | 0.3                                                                               | -                                                                                 | -                                                                                 | 0.1                                                                               | -    | -        | 11.6                                                                              |                                |          |                                                                                   |                                                                                   |
| Notes                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |          |                                                                                   |                                |          |                                                                                   |                                                                                   |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s                                                            |                                                                                   |                                                                                   | +: Computation Not Defined                                                        |      |          |                                                                                   | *: All major volume in platoon |          |                                                                                   |                                                                                   |



HCM 6th TWSC  
4: Driveway #1 & Old Cornelia Highway

2035 - Phase 3 Build Conditions  
AM Peak Hour

| Intersection               |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
|----------------------------|-----------------------------------------------------------------------------------|------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------|
| Int Delay, s/veh           | 1322.4                                                                            |                        |        |                                                                                   |                                                                                   |                                |
| Movement                   | EBT                                                                               | EBR                    | WBL    | WBT                                                                               | NBL                                                                               | NBR                            |
| Lane Configurations        |  |                        |        |  |  |                                |
| Traffic Vol, veh/h         | 601                                                                               | 111                    | 98     | 1156                                                                              | 329                                                                               | 290                            |
| Future Vol, veh/h          | 601                                                                               | 111                    | 98     | 1156                                                                              | 329                                                                               | 290                            |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                      | 0      | 0                                                                                 | 0                                                                                 | 0                              |
| Sign Control               | Free                                                                              | Free                   | Free   | Free                                                                              | Stop                                                                              | Stop                           |
| RT Channelized             | -                                                                                 | None                   | -      | None                                                                              | -                                                                                 | None                           |
| Storage Length             | -                                                                                 | -                      | -      | -                                                                                 | 0                                                                                 | -                              |
| Veh in Median Storage, #   | 0                                                                                 | -                      | -      | 0                                                                                 | 0                                                                                 | -                              |
| Grade, %                   | 0                                                                                 | -                      | -      | 0                                                                                 | 0                                                                                 | -                              |
| Peak Hour Factor           | 92                                                                                | 92                     | 92     | 92                                                                                | 92                                                                                | 92                             |
| Heavy Vehicles, %          | 2                                                                                 | 2                      | 2      | 2                                                                                 | 2                                                                                 | 2                              |
| Mvmt Flow                  | 653                                                                               | 121                    | 107    | 1257                                                                              | 358                                                                               | 315                            |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| Major/Minor                | Major1                                                                            | Major2                 | Minor1 |                                                                                   |                                                                                   |                                |
| Conflicting Flow All       | 0                                                                                 | 0                      | 774    | 0                                                                                 | 2185                                                                              | 714                            |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 714                                                                               | -                              |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | 1471                                                                              | -                              |
| Critical Hdwy              | -                                                                                 | -                      | 4.12   | -                                                                                 | 6.42                                                                              | 6.22                           |
| Critical Hdwy Stg 1        | -                                                                                 | -                      | -      | -                                                                                 | 5.42                                                                              | -                              |
| Critical Hdwy Stg 2        | -                                                                                 | -                      | -      | -                                                                                 | 5.42                                                                              | -                              |
| Follow-up Hdwy             | -                                                                                 | -                      | 2.218  | -                                                                                 | 3.518                                                                             | 3.318                          |
| Pot Cap-1 Maneuver         | -                                                                                 | -                      | 842    | -                                                                                 | ~ 50                                                                              | 431                            |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 485                                                                               | -                              |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | ~ 211                                                                             | -                              |
| Platoon blocked, %         | -                                                                                 | -                      | -      | -                                                                                 | -                                                                                 | -                              |
| Mov Cap-1 Maneuver         | -                                                                                 | -                      | 842    | -                                                                                 | ~ 29                                                                              | 431                            |
| Mov Cap-2 Maneuver         | -                                                                                 | -                      | -      | -                                                                                 | ~ 29                                                                              | -                              |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 485                                                                               | -                              |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | ~ 122                                                                             | -                              |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| Approach                   | EB                                                                                | WB                     |        | NB                                                                                |                                                                                   |                                |
| HCM Control Delay, s       | 0                                                                                 | 0.8                    |        | \$ 5520.8                                                                         |                                                                                   |                                |
| HCM LOS                    | F                                                                                 |                        |        |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBT                    | EBR    | WBL                                                                               | WBT                                                                               |                                |
| Capacity (veh/h)           | 52                                                                                | -                      | -      | 842                                                                               | -                                                                                 |                                |
| HCM Lane V/C Ratio         | 12.939                                                                            | -                      | -      | 0.127                                                                             | -                                                                                 |                                |
| HCM Control Delay (s)      | \$ 5520.8                                                                         | -                      | -      | 9.9                                                                               | 0                                                                                 |                                |
| HCM Lane LOS               | F                                                                                 | -                      | -      | A                                                                                 | A                                                                                 |                                |
| HCM 95th %tile Q(veh)      | 80.7                                                                              | -                      | -      | 0.4                                                                               | -                                                                                 |                                |
| Notes                      |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s |        | +: Computation Not Defined                                                        |                                                                                   | *: All major volume in platoon |

| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.8                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 1375                                                                              | 17   | 0    | 851                                                                               | 10                                                                                | 0    |
| Future Vol, veh/h        | 1375                                                                              | 17   | 0    | 851                                                                               | 10                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                | 90   |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2    | 1                                                                                 | 14                                                                                | 2    |
| Mvmt Flow                | 1528                                                                              | 19   | 0    | 946                                                                               | 11                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1547   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 429    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 429    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB    |
|----------------------|----|----|-------|
| HCM Control Delay, s | 0  | 0  | 183.5 |
| HCM LOS              |    |    | F     |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 30    | -   | -   | 429 | -   |
| HCM Lane V/C Ratio    | 0.37  | -   | -   | -   | -   |
| HCM Control Delay (s) | 183.5 | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 1.2   | -   | -   | 0   | -   |

| Intersection               |          |                        |        |                            |          |                                |
|----------------------------|----------|------------------------|--------|----------------------------|----------|--------------------------------|
| Int Delay, s/veh           | 28.8     |                        |        |                            |          |                                |
| Movement                   | EBT      | EBR                    | WBL    | WBT                        | NBL      | NBR                            |
| Lane Configurations        | ↑        | ↗                      | ↖      | ↑                          | ↘↗       |                                |
| Traffic Vol, veh/h         | 1488     | 30                     | 41     | 719                        | 36       | 76                             |
| Future Vol, veh/h          | 1488     | 30                     | 41     | 719                        | 36       | 76                             |
| Conflicting Peds, #/hr     | 0        | 0                      | 0      | 0                          | 0        | 0                              |
| Sign Control               | Free     | Free                   | Free   | Free                       | Stop     | Stop                           |
| RT Channelized             | -        | None                   | -      | None                       | -        | None                           |
| Storage Length             | -        | 200                    | 150    | -                          | 0        | -                              |
| Veh in Median Storage, #   | 0        | -                      | -      | 0                          | 0        | -                              |
| Grade, %                   | 0        | -                      | -      | 0                          | 0        | -                              |
| Peak Hour Factor           | 92       | 92                     | 92     | 92                         | 92       | 92                             |
| Heavy Vehicles, %          | 9        | 0                      | 0      | 2                          | 0        | 0                              |
| Mvmt Flow                  | 1617     | 33                     | 45     | 782                        | 39       | 83                             |
|                            |          |                        |        |                            |          |                                |
| Major/Minor                | Major1   |                        | Major2 |                            | Minor1   |                                |
| Conflicting Flow All       | 0        | 0                      | 1650   | 0                          | 2489     | 1617                           |
| Stage 1                    | -        | -                      | -      | -                          | 1617     | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 872      | -                              |
| Critical Hdwy              | -        | -                      | 4.1    | -                          | 6.4      | 6.2                            |
| Critical Hdwy Stg 1        | -        | -                      | -      | -                          | 5.4      | -                              |
| Critical Hdwy Stg 2        | -        | -                      | -      | -                          | 5.4      | -                              |
| Follow-up Hdwy             | -        | -                      | 2.2    | -                          | 3.5      | 3.3                            |
| Pot Cap-1 Maneuver         | -        | -                      | 397    | -                          | ~ 33     | 129                            |
| Stage 1                    | -        | -                      | -      | -                          | 180      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 412      | -                              |
| Platoon blocked, %         | -        | -                      |        | -                          |          |                                |
| Mov Cap-1 Maneuver         | -        | -                      | 397    | -                          | ~ 29     | 129                            |
| Mov Cap-2 Maneuver         | -        | -                      | -      | -                          | ~ 29     | -                              |
| Stage 1                    | -        | -                      | -      | -                          | 180      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 365      | -                              |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Approach                   | EB       |                        | WB     |                            | NB       |                                |
| HCM Control Delay, s       | 0        |                        | 0.8    |                            | \$ 609.3 |                                |
| HCM LOS                    |          |                        |        |                            | F        |                                |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Minor Lane/Major Mvmt      | NBLn1    | EBT                    | EBR    | WBL                        | WBT      |                                |
| Capacity (veh/h)           | 61       | -                      | -      | 397                        | -        |                                |
| HCM Lane V/C Ratio         | 1.996    | -                      | -      | 0.112                      | -        |                                |
| HCM Control Delay (s)      | \$ 609.3 | -                      | -      | 15.2                       | -        |                                |
| HCM Lane LOS               | F        | -                      | -      | C                          | -        |                                |
| HCM 95th %tile Q(veh)      | 11.5     | -                      | -      | 0.4                        | -        |                                |
| Notes                      |          |                        |        |                            |          |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |        | +: Computation Not Defined |          | *: All major volume in platoon |

HCM 6th TWSC  
3: Shell Gas Station/Oconee Circle & Old Cornelia Highway

2035 - Phase 3 Build Conditions  
PM Peak Hour

| Intersection             |       |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|-------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 156.6 |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL   | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |       |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 103   | 1390 | 44   | 30   | 721  | 3    | 26   | 7    | 122  | 5    | 2    | 70   |
| Future Vol, veh/h        | 103   | 1390 | 44   | 30   | 721  | 3    | 26   | 7    | 122  | 5    | 2    | 70   |
| Conflicting Peds, #/hr   | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free  | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized           | -     | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | 75    | -    | 115  | 50   | -    | -    | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -     | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -     | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 87    | 87   | 87   | 87   | 87   | 87   | 87   | 87   | 87   | 87   | 87   | 87   |
| Heavy Vehicles, %        | 1     | 1    | 0    | 0    | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mvmt Flow                | 118   | 1598 | 51   | 34   | 829  | 3    | 30   | 8    | 140  | 6    | 2    | 80   |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |     |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|-----|
| Conflicting Flow All | 832    | 0 | 0 | 1649   | 0 | 0 | 2774   | 2734 | 799 | 1938   | 2784 | 831 |
| Stage 1              | -      | - | - | -      | - | - | 1834   | 1834 | -   | 899    | 899  | -   |
| Stage 2              | -      | - | - | -      | - | - | 940    | 900  | -   | 1039   | 1885 | -   |
| Critical Hdwy        | 4.115  | - | - | 4.1    | - | - | 7.3    | 6.5  | 6.9 | 7.3    | 6.5  | 6.2 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.1    | 5.5  | -   |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.1    | 5.5  | -   | 6.5    | 5.5  | -   |
| Follow-up Hdwy       | 2.2095 | - | - | 2.2    | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3 |
| Pot Cap-1 Maneuver   | 804    | - | - | 397    | - | - | ~ 11   | 21   | 333 | 45     | 19   | 373 |
| Stage 1              | -      | - | - | -      | - | - | 80     | 128  | -   | 336    | 360  | -   |
| Stage 2              | -      | - | - | -      | - | - | 319    | 360  | -   | 250    | 121  | -   |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -   | -      | -    | -   |
| Mov Cap-1 Maneuver   | 804    | - | - | 397    | - | - | ~ 6    | 16   | 333 | 13     | 15   | 373 |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | ~ 6    | 16   | -   | 13     | 15   | -   |
| Stage 1              | -      | - | - | -      | - | - | 68     | 109  | -   | 287    | 329  | -   |
| Stage 2              | -      | - | - | -      | - | - | 227    | 329  | -   | 114    | 103  | -   |

| Approach             | EB  | WB  | NB        | SB    |
|----------------------|-----|-----|-----------|-------|
| HCM Control Delay, s | 0.7 | 0.6 | \$ 2483.4 | 113.4 |
| HCM LOS              |     |     | F         | F     |

| Minor Lane/Major Mvmt | NBLn1     | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-----------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 30        | 804   | -   | -   | 397   | -   | -   | 109   |
| HCM Lane V/C Ratio    | 5.939     | 0.147 | -   | -   | 0.087 | -   | -   | 0.812 |
| HCM Control Delay (s) | \$ 2483.4 | 10.2  | -   | -   | 14.9  | -   | -   | 113.4 |
| HCM Lane LOS          | F         | B     | -   | -   | B     | -   | -   | F     |
| HCM 95th %tile Q(veh) | 21.6      | 0.5   | -   | -   | 0.3   | -   | -   | 4.6   |

| Notes                      |                        |                            |                                |
|----------------------------|------------------------|----------------------------|--------------------------------|
| ~: Volume exceeds capacity | \$: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |



| Intersection               |                                                                                   |                        |       |                                                                                   |                                                                                   |                                |
|----------------------------|-----------------------------------------------------------------------------------|------------------------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------|
| Int Delay, s/veh           | 146.1                                                                             |                        |       |                                                                                   |                                                                                   |                                |
| Movement                   | EBT                                                                               | EBR                    | WBL   | WBT                                                                               | NBL                                                                               | NBR                            |
| Lane Configurations        |  |                        |       |  |  |                                |
| Traffic Vol, veh/h         | 1201                                                                              | 363                    | 320   | 541                                                                               | 218                                                                               | 192                            |
| Future Vol, veh/h          | 1201                                                                              | 363                    | 320   | 541                                                                               | 218                                                                               | 192                            |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                      | 0     | 0                                                                                 | 0                                                                                 | 0                              |
| Sign Control               | Free                                                                              | Free                   | Free  | Free                                                                              | Stop                                                                              | Stop                           |
| RT Channelized             | -                                                                                 | None                   | -     | None                                                                              | -                                                                                 | None                           |
| Storage Length             | -                                                                                 | -                      | -     | -                                                                                 | 0                                                                                 | -                              |
| Veh in Median Storage, #   | 0                                                                                 | -                      | -     | 0                                                                                 | 0                                                                                 | -                              |
| Grade, %                   | 0                                                                                 | -                      | -     | 0                                                                                 | 0                                                                                 | -                              |
| Peak Hour Factor           | 92                                                                                | 92                     | 92    | 92                                                                                | 92                                                                                | 92                             |
| Heavy Vehicles, %          | 2                                                                                 | 2                      | 2     | 2                                                                                 | 2                                                                                 | 2                              |
| Mvmt Flow                  | 1305                                                                              | 395                    | 348   | 588                                                                               | 237                                                                               | 209                            |
|                            |                                                                                   |                        |       |                                                                                   |                                                                                   |                                |
| Major/Minor                | Major1                                                                            | Major2                 |       | Minor1                                                                            |                                                                                   |                                |
| Conflicting Flow All       | 0                                                                                 | 0                      | 1700  | 0                                                                                 | 2787                                                                              | 1503                           |
| Stage 1                    | -                                                                                 | -                      | -     | -                                                                                 | 1503                                                                              | -                              |
| Stage 2                    | -                                                                                 | -                      | -     | -                                                                                 | 1284                                                                              | -                              |
| Critical Hdwy              | -                                                                                 | -                      | 4.12  | -                                                                                 | 6.42                                                                              | 6.22                           |
| Critical Hdwy Stg 1        | -                                                                                 | -                      | -     | -                                                                                 | 5.42                                                                              | -                              |
| Critical Hdwy Stg 2        | -                                                                                 | -                      | -     | -                                                                                 | 5.42                                                                              | -                              |
| Follow-up Hdwy             | -                                                                                 | -                      | 2.218 | -                                                                                 | 3.518                                                                             | 3.318                          |
| Pot Cap-1 Maneuver         | -                                                                                 | -                      | 374   | -                                                                                 | ~ 21                                                                              | ~ 149                          |
| Stage 1                    | -                                                                                 | -                      | -     | -                                                                                 | ~ 203                                                                             | -                              |
| Stage 2                    | -                                                                                 | -                      | -     | -                                                                                 | 260                                                                               | -                              |
| Platoon blocked, %         | -                                                                                 | -                      | -     | -                                                                                 | -                                                                                 | -                              |
| Mov Cap-1 Maneuver         | -                                                                                 | -                      | 374   | -                                                                                 | 0                                                                                 | ~ 149                          |
| Mov Cap-2 Maneuver         | -                                                                                 | -                      | -     | -                                                                                 | 0                                                                                 | -                              |
| Stage 1                    | -                                                                                 | -                      | -     | -                                                                                 | ~ 203                                                                             | -                              |
| Stage 2                    | -                                                                                 | -                      | -     | -                                                                                 | 0                                                                                 | -                              |
|                            |                                                                                   |                        |       |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |       |                                                                                   |                                                                                   |                                |
| Approach                   | EB                                                                                | WB                     |       | NB                                                                                |                                                                                   |                                |
| HCM Control Delay, s       | 0                                                                                 | 23.9                   |       | \$ 960                                                                            |                                                                                   |                                |
| HCM LOS                    | F                                                                                 |                        |       |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |       |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |       |                                                                                   |                                                                                   |                                |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBT                    | EBR   | WBL                                                                               | WBT                                                                               |                                |
| Capacity (veh/h)           | 149                                                                               | -                      | -     | 374                                                                               | -                                                                                 |                                |
| HCM Lane V/C Ratio         | 2.991                                                                             | -                      | -     | 0.93                                                                              | -                                                                                 |                                |
| HCM Control Delay (s)      | \$ 960                                                                            | -                      | -     | 64.3                                                                              | 0                                                                                 |                                |
| HCM Lane LOS               | F                                                                                 | -                      | -     | F                                                                                 | A                                                                                 |                                |
| HCM 95th %tile Q(veh)      | 41.1                                                                              | -                      | -     | 9.9                                                                               | -                                                                                 |                                |
| Notes                      |                                                                                   |                        |       |                                                                                   |                                                                                   |                                |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s |       | +: Computation Not Defined                                                        |                                                                                   | *: All major volume in platoon |

## APPENDIX L

### CAPACITY ANALYSIS REPORTS - WIDENING CONDITIONS



**NO-BUILD**

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑    |      |
| Traffic Vol, veh/h       | 508  | 11   | 1    | 896  | 15   | 3    |
| Future Vol, veh/h        | 508  | 11   | 1    | 896  | 15   | 3    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 7    | 11   | 0    | 2    | 0    | 33   |
| Mvmt Flow                | 552  | 12   | 1    | 974  | 16   | 3    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |      |
|----------------------|--------|--------|--------|---|------|------|
| Conflicting Flow All | 0      | 0      | 564    | 0 | 1047 | 282  |
| Stage 1              | -      | -      | -      | - | 558  | -    |
| Stage 2              | -      | -      | -      | - | 489  | -    |
| Critical Hdwy        | -      | -      | 4.1    | - | 6.8  | 7.56 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.8  | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.8  | -    |
| Follow-up Hdwy       | -      | -      | 2.2    | - | 3.5  | 3.63 |
| Pot Cap-1 Maneuver   | -      | -      | 1018   | - | 227  | 630  |
| Stage 1              | -      | -      | -      | - | 542  | -    |
| Stage 2              | -      | -      | -      | - | 588  | -    |
| Platoon blocked, %   | -      | -      | -      | - | -    | -    |
| Mov Cap-1 Maneuver   | -      | -      | 1018   | - | 227  | 630  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 227  | -    |
| Stage 1              | -      | -      | -      | - | 542  | -    |
| Stage 2              | -      | -      | -      | - | 587  | -    |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 20.4 |
| HCM LOS              |    |    | C    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 254   | -   | -   | 1018  | -   |
| HCM Lane V/C Ratio    | 0.077 | -   | -   | 0.001 | -   |
| HCM Control Delay (s) | 20.4  | -   | -   | 8.5   | 0   |
| HCM Lane LOS          | C     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.2   | -   | -   | 0     | -   |



| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 5.8  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   | ↑    | ↑    | ↑↑   | ↑    | ↑    |
| Traffic Vol, veh/h       | 458  | 77   | 46   | 865  | 90   | 60   |
| Future Vol, veh/h        | 458  | 77   | 46   | 865  | 90   | 60   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | 200  | 150  | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 83   | 83   | 83   | 83   | 83   | 83   |
| Heavy Vehicles, %        | 4    | 3    | 3    | 2    | 9    | 10   |
| Mvmt Flow                | 552  | 93   | 55   | 1042 | 108  | 72   |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |     |
|----------------------|--------|--------|--------|---|------|-----|
| Conflicting Flow All | 0      | 0      | 645    | 0 | 1183 | 276 |
| Stage 1              | -      | -      | -      | - | 552  | -   |
| Stage 2              | -      | -      | -      | - | 631  | -   |
| Critical Hdwy        | -      | -      | 4.16   | - | 6.98 | 7.1 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.98 | -   |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.98 | -   |
| Follow-up Hdwy       | -      | -      | 2.23   | - | 3.59 | 3.4 |
| Pot Cap-1 Maneuver   | -      | -      | 929    | - | 172  | 698 |
| Stage 1              | -      | -      | -      | - | 521  | -   |
| Stage 2              | -      | -      | -      | - | 474  | -   |
| Platoon blocked, %   | -      | -      | -      | - | -    | -   |
| Mov Cap-1 Maneuver   | -      | -      | 929    | - | 162  | 698 |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 162  | -   |
| Stage 1              | -      | -      | -      | - | 521  | -   |
| Stage 2              | -      | -      | -      | - | 446  | -   |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.5 | 58.4 |
| HCM LOS              |    |     | F    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | 234   | -   | -   | 929  | -   |
| HCM Lane V/C Ratio    | 0.772 | -   | -   | 0.06 | -   |
| HCM Control Delay (s) | 58.4  | -   | -   | 9.1  | -   |
| HCM Lane LOS          | F     | -   | -   | A    | -   |
| HCM 95th %tile Q(veh) | 5.5   | -   | -   | 0.2  | -   |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 2.4                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |  |  |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 33                                                                                | 491                                                                               | 3                                                                                 | 22                                                                                | 929                                                                               | 4    | 3    | 0                                                                                 | 32   | 13   | 1                                                                                   | 108  |
| Future Vol, veh/h        | 33                                                                                | 491                                                                               | 3                                                                                 | 22                                                                                | 929                                                                               | 4    | 3    | 0                                                                                 | 32   | 13   | 1                                                                                   | 108  |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90   | 90   | 90                                                                                | 90   | 90   | 90                                                                                  | 90   |
| Heavy Vehicles, %        | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Mvmt Flow                | 37                                                                                | 546                                                                               | 3                                                                                 | 24                                                                                | 1032                                                                              | 4    | 3    | 0                                                                                 | 36   | 14   | 1                                                                                   | 120  |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |     |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|-----|
| Conflicting Flow All | 1036   | 0 | 0 | 549    | 0 | 0 | 1185   | 1704 | 273 | 1429   | 1705 | 518 |
| Stage 1              | -      | - | - | -      | - | - | 620    | 620  | -   | 1082   | 1082 | -   |
| Stage 2              | -      | - | - | -      | - | - | 565    | 1084 | -   | 347    | 623  | -   |
| Critical Hdwy        | 4.1    | - | - | 4.2    | - | - | 7.5    | 6.5  | 6.9 | 7.5    | 6.5  | 6.9 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Follow-up Hdwy       | 2.2    | - | - | 2.25   | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3 |
| Pot Cap-1 Maneuver   | 679    | - | - | 996    | - | - | 147    | 93   | 731 | 97     | 92   | 508 |
| Stage 1              | -      | - | - | -      | - | - | 447    | 483  | -   | 236    | 296  | -   |
| Stage 2              | -      | - | - | -      | - | - | 482    | 296  | -   | 648    | 481  | -   |
| Platoon blocked, %   |        | - | - |        | - | - |        |      |     |        |      |     |
| Mov Cap-1 Maneuver   | 679    | - | - | 996    | - | - | 105    | 86   | 731 | 87     | 85   | 508 |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 105    | 86   | -   | 87     | 85   | -   |
| Stage 1              | -      | - | - | -      | - | - | 423    | 457  | -   | 223    | 289  | -   |
| Stage 2              | -      | - | - | -      | - | - | 358    | 289  | -   | 583    | 455  | -   |

| Approach             | EB  |  |  | WB  |  |  | NB   |  |  | SB   |  |  |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.7 |  |  | 0.2 |  |  | 13.1 |  |  | 23.7 |  |  |
| HCM LOS              |     |  |  |     |  |  | B    |  |  | C    |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 484   | 679   | -   | -   | 996   | -   | -   | 326   |
| HCM Lane V/C Ratio    | 0.08  | 0.054 | -   | -   | 0.025 | -   | -   | 0.416 |
| HCM Control Delay (s) | 13.1  | 10.6  | -   | -   | 8.7   | -   | -   | 23.7  |
| HCM Lane LOS          | B     | B     | -   | -   | A     | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0.3   | 0.2   | -   | -   | 0.1   | -   | -   | 2     |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.2  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑    |      |
| Traffic Vol, veh/h       | 1020 | 15   | 0    | 458  | 8    | 0    |
| Future Vol, veh/h        | 1020 | 15   | 0    | 458  | 8    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 90   | 90   | 90   | 90   | 90   | 90   |
| Heavy Vehicles, %        | 1    | 8    | 2    | 1    | 14   | 2    |
| Mvmt Flow                | 1133 | 17   | 0    | 509  | 9    | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |      |
|----------------------|--------|--------|--------|---|------|------|
| Conflicting Flow All | 0      | 0      | 1150   | 0 | 1397 | 575  |
| Stage 1              | -      | -      | -      | - | 1142 | -    |
| Stage 2              | -      | -      | -      | - | 255  | -    |
| Critical Hdwy        | -      | -      | 4.14   | - | 7.08 | 6.94 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 6.08 | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 6.08 | -    |
| Follow-up Hdwy       | -      | -      | 2.22   | - | 3.64 | 3.32 |
| Pot Cap-1 Maneuver   | -      | -      | 603    | - | 118  | 461  |
| Stage 1              | -      | -      | -      | - | 242  | -    |
| Stage 2              | -      | -      | -      | - | 729  | -    |
| Platoon blocked, %   | -      | -      | -      | - | -    | -    |
| Mov Cap-1 Maneuver   | -      | -      | 603    | - | 118  | 461  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 118  | -    |
| Stage 1              | -      | -      | -      | - | 242  | -    |
| Stage 2              | -      | -      | -      | - | 729  | -    |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 38 |
| HCM LOS              |    |    | E  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 118   | -   | -   | 603 | -   |
| HCM Lane V/C Ratio    | 0.075 | -   | -   | -   | -   |
| HCM Control Delay (s) | 38    | -   | -   | 0   | -   |
| HCM Lane LOS          | E     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.2   | -   | -   | 0   | -   |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 0.9    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     | ↗    | ↖      | ↑↑    | ↘      |      |
| Traffic Vol, veh/h       | 1023   | 25   | 3      | 463   | 31     | 12   |
| Future Vol, veh/h        | 1023   | 25   | 3      | 463   | 31     | 12   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1112   | 27   | 3      | 503   | 34     | 13   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1139   | 0     | 1370   | 556  |
| Stage 1                  | -      | -    | -      | -     | 1112   | -    |
| Stage 2                  | -      | -    | -      | -     | 258    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 6.9  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 621    | -     | 140    | 480  |
| Stage 1                  | -      | -    | -      | -     | 281    | -    |
| Stage 2                  | -      | -    | -      | -     | 767    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 621    | -     | 139    | 480  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 139    | -    |
| Stage 1                  | -      | -    | -      | -     | 281    | -    |
| Stage 2                  | -      | -    | -      | -     | 763    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.1    |       | 33.3   |      |
| HCM LOS                  | D      |      |        |       |        |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 173    | -    | -      | 621   | -      |      |
| HCM Lane V/C Ratio       | 0.27   | -    | -      | 0.005 | -      |      |
| HCM Control Delay (s)    | 33.3   | -    | -      | 10.8  | -      |      |
| HCM Lane LOS             | D      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 1      | -    | -      | 0     | -      |      |



| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 6.4                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |      |  |      |      |  |  |
| Traffic Vol, veh/h       | 89                                                                                | 951                                                                               | 38                                                                                | 20                                                                                | 473                                                                               | 1                                                                                 | 22   | 6                                                                                 | 95   | 2    | 2                                                                                 | 60                                                                                |
| Future Vol, veh/h        | 89                                                                                | 951                                                                               | 38                                                                                | 20                                                                                | 473                                                                               | 1                                                                                 | 22   | 6                                                                                 | 95   | 2    | 2                                                                                 | 60                                                                                |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop | Stop                                                                              | Stop | Stop | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None                                                                              | -    | -                                                                                 | None | -    | -                                                                                 | None                                                                              |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 | -                                                                                 |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87   | 87                                                                                | 87   | 87   | 87                                                                                | 87                                                                                |
| Heavy Vehicles, %        | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                | 102                                                                               | 1093                                                                              | 44                                                                                | 23                                                                                | 544                                                                               | 1                                                                                 | 25   | 7                                                                                 | 109  | 2    | 2                                                                                 | 69                                                                                |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |     |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|-----|
| Conflicting Flow All | 545    | 0 | 0 | 1137   | 0 | 0 | 1616   | 1888 | 547 | 1345   | 1932 | 273 |
| Stage 1              | -      | - | - | -      | - | - | 1297   | 1297 | -   | 591    | 591  | -   |
| Stage 2              | -      | - | - | -      | - | - | 319    | 591  | -   | 754    | 1341 | -   |
| Critical Hdwy        | 4.12   | - | - | 4.1    | - | - | 7.5    | 6.5  | 6.9 | 7.5    | 6.5  | 6.9 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Follow-up Hdwy       | 2.21   | - | - | 2.2    | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3 |
| Pot Cap-1 Maneuver   | 1027   | - | - | 622    | - | - | 70     | 71   | 486 | 112    | 67   | 731 |
| Stage 1              | -      | - | - | -      | - | - | 174    | 234  | -   | 465    | 498  | -   |
| Stage 2              | -      | - | - | -      | - | - | 673    | 498  | -   | 372    | 223  | -   |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -   | -      | -    | -   |
| Mov Cap-1 Maneuver   | 1027   | - | - | 622    | - | - | 55     | 62   | 486 | 71     | 58   | 731 |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 55     | 62   | -   | 71     | 58   | -   |
| Stage 1              | -      | - | - | -      | - | - | 157    | 211  | -   | 419    | 480  | -   |
| Stage 2              | -      | - | - | -      | - | - | 584    | 480  | -   | 251    | 201  | -   |

| Approach             | EB  |  |  | WB  |  |  | NB   |  |  | SB   |  |  |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.7 |  |  | 0.4 |  |  | 75.7 |  |  | 14.8 |  |  |
| HCM LOS              |     |  |  |     |  |  | F    |  |  | B    |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBL  | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 178   | 1027 | -   | -   | 622   | -   | -   | 442   |
| HCM Lane V/C Ratio    | 0.794 | 0.1  | -   | -   | 0.037 | -   | -   | 0.166 |
| HCM Control Delay (s) | 75.7  | 8.9  | -   | -   | 11    | -   | -   | 14.8  |
| HCM Lane LOS          | F     | A    | -   | -   | B     | -   | -   | B     |
| HCM 95th %tile Q(veh) | 5.3   | 0.3  | -   | -   | 0.1   | -   | -   | 0.6   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑↑   |      |
| Traffic Vol, veh/h       | 546  | 11   | 1    | 963  | 16   | 3    |
| Future Vol, veh/h        | 546  | 11   | 1    | 963  | 16   | 3    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 7    | 11   | 0    | 2    | 0    | 33   |
| Mvmt Flow                | 593  | 12   | 1    | 1047 | 17   | 3    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |      |
|----------------------|--------|--------|--------|---|------|------|
| Conflicting Flow All | 0      | 0      | 605    | 0 | 1125 | 303  |
| Stage 1              | -      | -      | -      | - | 599  | -    |
| Stage 2              | -      | -      | -      | - | 526  | -    |
| Critical Hdwy        | -      | -      | 4.1    | - | 6.8  | 7.56 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.8  | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.8  | -    |
| Follow-up Hdwy       | -      | -      | 2.2    | - | 3.5  | 3.63 |
| Pot Cap-1 Maneuver   | -      | -      | 983    | - | 202  | 609  |
| Stage 1              | -      | -      | -      | - | 517  | -    |
| Stage 2              | -      | -      | -      | - | 563  | -    |
| Platoon blocked, %   | -      | -      | -      | - | -    | -    |
| Mov Cap-1 Maneuver   | -      | -      | 983    | - | 202  | 609  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 202  | -    |
| Stage 1              | -      | -      | -      | - | 517  | -    |
| Stage 2              | -      | -      | -      | - | 562  | -    |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 22.5 |
| HCM LOS              |    |    | C    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 226   | -   | -   | 983   | -   |
| HCM Lane V/C Ratio    | 0.091 | -   | -   | 0.001 | -   |
| HCM Control Delay (s) | 22.5  | -   | -   | 8.7   | 0   |
| HCM Lane LOS          | C     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.3   | -   | -   | 0     | -   |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 9.7    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     | ↗    | ↘      | ↑↑    | ↘↗     |      |
| Traffic Vol, veh/h       | 492    | 83   | 49     | 930   | 97     | 65   |
| Future Vol, veh/h        | 492    | 83   | 49     | 930   | 97     | 65   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 83     | 83   | 83     | 83    | 83     | 83   |
| Heavy Vehicles, %        | 4      | 3    | 3      | 2     | 9      | 10   |
| Mvmt Flow                | 593    | 100  | 59     | 1120  | 117    | 78   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 693    | 0     | 1271   | 297  |
| Stage 1                  | -      | -    | -      | -     | 593    | -    |
| Stage 2                  | -      | -    | -      | -     | 678    | -    |
| Critical Hdwy            | -      | -    | 4.16   | -     | 6.98   | 7.1  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.98   | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.98   | -    |
| Follow-up Hdwy           | -      | -    | 2.23   | -     | 3.59   | 3.4  |
| Pot Cap-1 Maneuver       | -      | -    | 891    | -     | 150    | 676  |
| Stage 1                  | -      | -    | -      | -     | 496    | -    |
| Stage 2                  | -      | -    | -      | -     | 447    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 891    | -     | 140    | 676  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 140    | -    |
| Stage 1                  | -      | -    | -      | -     | 496    | -    |
| Stage 2                  | -      | -    | -      | -     | 417    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.5    |       | 99.2   |      |
| HCM LOS                  | F      |      |        |       |        |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 205    | -    | -      | 891   | -      |      |
| HCM Lane V/C Ratio       | 0.952  | -    | -      | 0.066 | -      |      |
| HCM Control Delay (s)    | 99.2   | -    | -      | 9.3   | -      |      |
| HCM Lane LOS             | F      | -    | -      | A     | -      |      |
| HCM 95th %tile Q(veh)    | 8      | -    | -      | 0.2   | -      |      |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 2.8                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |      |  |      |      |  |  |
| Traffic Vol, veh/h       | 35                                                                                | 528                                                                               | 3                                                                                 | 24                                                                                | 999                                                                               | 5                                                                                 | 3    | 0                                                                                 | 34   | 14   | 1                                                                                 | 116                                                                               |
| Future Vol, veh/h        | 35                                                                                | 528                                                                               | 3                                                                                 | 24                                                                                | 999                                                                               | 5                                                                                 | 3    | 0                                                                                 | 34   | 14   | 1                                                                                 | 116                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop | Stop                                                                              | Stop | Stop | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None                                                                              | -    | -                                                                                 | None | -    | -                                                                                 | None                                                                              |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 | -                                                                                 |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90   | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                |
| Heavy Vehicles, %        | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                | 39                                                                                | 587                                                                               | 3                                                                                 | 27                                                                                | 1110                                                                              | 6                                                                                 | 3    | 0                                                                                 | 38   | 16   | 1                                                                                 | 129                                                                               |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |     |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|-----|
| Conflicting Flow All | 1116   | 0 | 0 | 590    | 0 | 0 | 1275   | 1835 | 294 | 1539   | 1835 | 558 |
| Stage 1              | -      | - | - | -      | - | - | 665    | 665  | -   | 1167   | 1167 | -   |
| Stage 2              | -      | - | - | -      | - | - | 610    | 1170 | -   | 372    | 668  | -   |
| Critical Hdwy        | 4.1    | - | - | 4.2    | - | - | 7.5    | 6.5  | 6.9 | 7.5    | 6.5  | 6.9 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Follow-up Hdwy       | 2.2    | - | - | 2.25   | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3 |
| Pot Cap-1 Maneuver   | 633    | - | - | 961    | - | - | 126    | 77   | 708 | 80     | 77   | 478 |
| Stage 1              | -      | - | - | -      | - | - | 420    | 461  | -   | 209    | 270  | -   |
| Stage 2              | -      | - | - | -      | - | - | 453    | 269  | -   | 626    | 459  | -   |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -   | -      | -    | -   |
| Mov Cap-1 Maneuver   | 633    | - | - | 961    | - | - | 85     | 70   | 708 | 71     | 70   | 478 |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 85     | 70   | -   | 71     | 70   | -   |
| Stage 1              | -      | - | - | -      | - | - | 394    | 432  | -   | 196    | 262  | -   |
| Stage 2              | -      | - | - | -      | - | - | 320    | 261  | -   | 556    | 431  | -   |

| Approach             | EB  |  |  | WB  |  |  | NB   |  |  | SB   |  |  |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.7 |  |  | 0.2 |  |  | 13.9 |  |  | 29.6 |  |  |
| HCM LOS              |     |  |  |     |  |  | B    |  |  | D    |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 444   | 633   | -   | -   | 961   | -   | -   | 288   |
| HCM Lane V/C Ratio    | 0.093 | 0.061 | -   | -   | 0.028 | -   | -   | 0.505 |
| HCM Control Delay (s) | 13.9  | 11.1  | -   | -   | 8.9   | -   | -   | 29.6  |
| HCM Lane LOS          | B     | B     | -   | -   | A     | -   | -   | D     |
| HCM 95th %tile Q(veh) | 0.3   | 0.2   | -   | -   | 0.1   | -   | -   | 2.7   |



| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑    |      |
| Traffic Vol, veh/h       | 1097 | 16   | 0    | 492  | 9    | 0    |
| Future Vol, veh/h        | 1097 | 16   | 0    | 492  | 9    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 90   | 90   | 90   | 90   | 90   | 90   |
| Heavy Vehicles, %        | 1    | 8    | 2    | 1    | 14   | 2    |
| Mvmt Flow                | 1219 | 18   | 0    | 547  | 10   | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1237   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.14   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.22   |
| Pot Cap-1 Maneuver   | -      | -      | 559    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 559    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 45 |
| HCM LOS              |    |    | E  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 100   | -   | -   | 559 | -   |
| HCM Lane V/C Ratio    | 0.1   | -   | -   | -   | -   |
| HCM Control Delay (s) | 45    | -   | -   | 0   | -   |
| HCM Lane LOS          | E     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.3   | -   | -   | 0   | -   |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 1.1    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     | ↗    | ↖      | ↑↑    | ↘      |      |
| Traffic Vol, veh/h       | 1100   | 27   | 3      | 498   | 33     | 13   |
| Future Vol, veh/h        | 1100   | 27   | 3      | 498   | 33     | 13   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1196   | 29   | 3      | 541   | 36     | 14   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1225   | 0     | 1473   | 598  |
| Stage 1                  | -      | -    | -      | -     | 1196   | -    |
| Stage 2                  | -      | -    | -      | -     | 277    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 6.9  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 576    | -     | 120    | 450  |
| Stage 1                  | -      | -    | -      | -     | 253    | -    |
| Stage 2                  | -      | -    | -      | -     | 751    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 576    | -     | 119    | 450  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 119    | -    |
| Stage 1                  | -      | -    | -      | -     | 253    | -    |
| Stage 2                  | -      | -    | -      | -     | 747    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.1    |       | 40.6   |      |
| HCM LOS                  | E      |      |        |       |        |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 150    | -    | -      | 576   | -      |      |
| HCM Lane V/C Ratio       | 0.333  | -    | -      | 0.006 | -      |      |
| HCM Control Delay (s)    | 40.6   | -    | -      | 11.3  | -      |      |
| HCM Lane LOS             | E      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 1.4    | -    | -      | 0     | -      |      |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 12.1                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |  |  |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 96                                                                                | 1023                                                                              | 41                                                                                | 22                                                                                | 508                                                                               | 1    | 24   | 7                                                                                 | 103  | 2    | 2                                                                                   | 65   |
| Future Vol, veh/h        | 96                                                                                | 1023                                                                              | 41                                                                                | 22                                                                                | 508                                                                               | 1    | 24   | 7                                                                                 | 103  | 2    | 2                                                                                   | 65   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87   | 87   | 87                                                                                | 87   | 87   | 87                                                                                  | 87   |
| Heavy Vehicles, %        | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Mvmt Flow                | 110                                                                               | 1176                                                                              | 47                                                                                | 25                                                                                | 584                                                                               | 1    | 28   | 8                                                                                 | 118  | 2    | 2                                                                                   | 75   |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |     |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|-----|
| Conflicting Flow All | 585    | 0 | 0 | 1223   | 0 | 0 | 1739   | 2031 | 588 | 1447   | 2078 | 293 |
| Stage 1              | -      | - | - | -      | - | - | 1396   | 1396 | -   | 635    | 635  | -   |
| Stage 2              | -      | - | - | -      | - | - | 343    | 635  | -   | 812    | 1443 | -   |
| Critical Hdwy        | 4.12   | - | - | 4.1    | - | - | 7.5    | 6.5  | 6.9 | 7.5    | 6.5  | 6.9 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Follow-up Hdwy       | 2.21   | - | - | 2.2    | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3 |
| Pot Cap-1 Maneuver   | 993    | - | - | 577    | - | - | 57     | 58   | 457 | 94     | 54   | 709 |
| Stage 1              | -      | - | - | -      | - | - | 151    | 210  | -   | 438    | 476  | -   |
| Stage 2              | -      | - | - | -      | - | - | 651    | 476  | -   | 343    | 199  | -   |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -   | -      | -    | -   |
| Mov Cap-1 Maneuver   | 993    | - | - | 577    | - | - | 43     | 49   | 457 | 54     | 46   | 709 |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 43     | 49   | -   | 54     | 46   | -   |
| Stage 1              | -      | - | - | -      | - | - | 134    | 187  | -   | 389    | 456  | -   |
| Stage 2              | -      | - | - | -      | - | - | 554    | 456  | -   | 216    | 177  | -   |

| Approach             | EB  |  |  | WB  |  |  | NB    |  |  | SB   |  |  |
|----------------------|-----|--|--|-----|--|--|-------|--|--|------|--|--|
| HCM Control Delay, s | 0.8 |  |  | 0.5 |  |  | 153.7 |  |  | 16.2 |  |  |
| HCM LOS              |     |  |  |     |  |  | F     |  |  | C    |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 145   | 993   | -   | -   | 577   | -   | -   | 401   |
| HCM Lane V/C Ratio    | 1.062 | 0.111 | -   | -   | 0.044 | -   | -   | 0.198 |
| HCM Control Delay (s) | 153.7 | 9.1   | -   | -   | 11.5  | -   | -   | 16.2  |
| HCM Lane LOS          | F     | A     | -   | -   | B     | -   | -   | C     |
| HCM 95th %tile Q(veh) | 8.2   | 0.4   | -   | -   | 0.1   | -   | -   | 0.7   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑    |      |
| Traffic Vol, veh/h       | 589  | 12   | 1    | 1039 | 17   | 4    |
| Future Vol, veh/h        | 589  | 12   | 1    | 1039 | 17   | 4    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 7    | 11   | 0    | 2    | 0    | 33   |
| Mvmt Flow                | 640  | 13   | 1    | 1129 | 18   | 4    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |      |
|----------------------|--------|--------|--------|---|------|------|
| Conflicting Flow All | 0      | 0      | 653    | 0 | 1214 | 327  |
| Stage 1              | -      | -      | -      | - | 647  | -    |
| Stage 2              | -      | -      | -      | - | 567  | -    |
| Critical Hdwy        | -      | -      | 4.1    | - | 6.8  | 7.56 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.8  | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.8  | -    |
| Follow-up Hdwy       | -      | -      | 2.2    | - | 3.5  | 3.63 |
| Pot Cap-1 Maneuver   | -      | -      | 943    | - | 177  | 586  |
| Stage 1              | -      | -      | -      | - | 489  | -    |
| Stage 2              | -      | -      | -      | - | 537  | -    |
| Platoon blocked, %   | -      | -      | -      | - | -    | -    |
| Mov Cap-1 Maneuver   | -      | -      | 943    | - | 176  | 586  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 176  | -    |
| Stage 1              | -      | -      | -      | - | 489  | -    |
| Stage 2              | -      | -      | -      | - | 535  | -    |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 25 |
| HCM LOS              |    |    | D  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 203   | -   | -   | 943   | -   |
| HCM Lane V/C Ratio    | 0.112 | -   | -   | 0.001 | -   |
| HCM Control Delay (s) | 25    | -   | -   | 8.8   | 0   |
| HCM Lane LOS          | D     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.4   | -   | -   | 0     | -   |



| Intersection               |        |                        |        |                            |        |                                |
|----------------------------|--------|------------------------|--------|----------------------------|--------|--------------------------------|
| Int Delay, s/veh           | 17.4   |                        |        |                            |        |                                |
| Movement                   | EBT    | EBR                    | WBL    | WBT                        | NBL    | NBR                            |
| Lane Configurations        | ↑↑     | ↗                      | ↘      | ↑↑                         | ↘↗     |                                |
| Traffic Vol, veh/h         | 531    | 90                     | 53     | 1004                       | 105    | 70                             |
| Future Vol, veh/h          | 531    | 90                     | 53     | 1004                       | 105    | 70                             |
| Conflicting Peds, #/hr     | 0      | 0                      | 0      | 0                          | 0      | 0                              |
| Sign Control               | Free   | Free                   | Free   | Free                       | Stop   | Stop                           |
| RT Channelized             | -      | None                   | -      | None                       | -      | None                           |
| Storage Length             | -      | 200                    | 150    | -                          | 0      | -                              |
| Veh in Median Storage, #   | 0      | -                      | -      | 0                          | 0      | -                              |
| Grade, %                   | 0      | -                      | -      | 0                          | 0      | -                              |
| Peak Hour Factor           | 83     | 83                     | 83     | 83                         | 83     | 83                             |
| Heavy Vehicles, %          | 4      | 3                      | 3      | 2                          | 9      | 10                             |
| Mvmt Flow                  | 640    | 108                    | 64     | 1210                       | 127    | 84                             |
|                            |        |                        |        |                            |        |                                |
| Major/Minor                | Major1 |                        | Major2 |                            | Minor1 |                                |
| Conflicting Flow All       | 0      | 0                      | 748    | 0                          | 1373   | 320                            |
| Stage 1                    | -      | -                      | -      | -                          | 640    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 733    | -                              |
| Critical Hdwy              | -      | -                      | 4.16   | -                          | 6.98   | 7.1                            |
| Critical Hdwy Stg 1        | -      | -                      | -      | -                          | 5.98   | -                              |
| Critical Hdwy Stg 2        | -      | -                      | -      | -                          | 5.98   | -                              |
| Follow-up Hdwy             | -      | -                      | 2.23   | -                          | 3.59   | 3.4                            |
| Pot Cap-1 Maneuver         | -      | -                      | 850    | -                          | 129    | 653                            |
| Stage 1                    | -      | -                      | -      | -                          | 469    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 418    | -                              |
| Platoon blocked, %         | -      | -                      |        | -                          |        |                                |
| Mov Cap-1 Maneuver         | -      | -                      | 850    | - ~                        | 119    | 653                            |
| Mov Cap-2 Maneuver         | -      | -                      | -      | - ~                        | 119    | -                              |
| Stage 1                    | -      | -                      | -      | -                          | 469    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 387    | -                              |
|                            |        |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Approach                   | EB     |                        | WB     |                            | NB     |                                |
| HCM Control Delay, s       | 0      |                        | 0.5    |                            | 181.3  |                                |
| HCM LOS                    |        |                        |        |                            | F      |                                |
|                            |        |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Minor Lane/Major Mvmt      | NBLn1  | EBT                    | EBR    | WBL                        | WBT    |                                |
| Capacity (veh/h)           | 177    | -                      | -      | 850                        | -      |                                |
| HCM Lane V/C Ratio         | 1.191  | -                      | -      | 0.075                      | -      |                                |
| HCM Control Delay (s)      | 181.3  | -                      | -      | 9.6                        | -      |                                |
| HCM Lane LOS               | F      | -                      | -      | A                          | -      |                                |
| HCM 95th %tile Q(veh)      | 11.3   | -                      | -      | 0.2                        | -      |                                |
| Notes                      |        |                        |        |                            |        |                                |
| ~: Volume exceeds capacity |        | \$: Delay exceeds 300s |        | +: Computation Not Defined |        | *: All major volume in platoon |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 3.7                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |      |  |      |      |  |  |
| Traffic Vol, veh/h       | 38                                                                                | 569                                                                               | 4                                                                                 | 26                                                                                | 1077                                                                              | 5                                                                                 | 4    | 0                                                                                 | 37   | 15   | 1                                                                                 | 125                                                                               |
| Future Vol, veh/h        | 38                                                                                | 569                                                                               | 4                                                                                 | 26                                                                                | 1077                                                                              | 5                                                                                 | 4    | 0                                                                                 | 37   | 15   | 1                                                                                 | 125                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop | Stop                                                                              | Stop | Stop | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None                                                                              | -    | -                                                                                 | None | -    | -                                                                                 | None                                                                              |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 | -                                                                                 |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90   | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                |
| Heavy Vehicles, %        | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                | 42                                                                                | 632                                                                               | 4                                                                                 | 29                                                                                | 1197                                                                              | 6                                                                                 | 4    | 0                                                                                 | 41   | 17   | 1                                                                                 | 139                                                                               |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |     |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|-----|
| Conflicting Flow All | 1203   | 0 | 0 | 636    | 0 | 0 | 1373   | 1977 | 316 | 1658   | 1978 | 602 |
| Stage 1              | -      | - | - | -      | - | - | 716    | 716  | -   | 1258   | 1258 | -   |
| Stage 2              | -      | - | - | -      | - | - | 657    | 1261 | -   | 400    | 720  | -   |
| Critical Hdwy        | 4.1    | - | - | 4.2    | - | - | 7.5    | 6.5  | 6.9 | 7.5    | 6.5  | 6.9 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Follow-up Hdwy       | 2.2    | - | - | 2.25   | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3 |
| Pot Cap-1 Maneuver   | 587    | - | - | 923    | - | - | 107    | 63   | 686 | 65     | 63   | 448 |
| Stage 1              | -      | - | - | -      | - | - | 392    | 437  | -   | 184    | 245  | -   |
| Stage 2              | -      | - | - | -      | - | - | 425    | 244  | -   | 603    | 435  | -   |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -   | -      | -    | -   |
| Mov Cap-1 Maneuver   | 587    | - | - | 923    | - | - | 67     | 57   | 686 | 56     | 57   | 448 |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 67     | 57   | -   | 56     | 57   | -   |
| Stage 1              | -      | - | - | -      | - | - | 364    | 406  | -   | 171    | 237  | -   |
| Stage 2              | -      | - | - | -      | - | - | 283    | 236  | -   | 526    | 404  | -   |

| Approach             | EB  | WB  | NB   | SB   |
|----------------------|-----|-----|------|------|
| HCM Control Delay, s | 0.7 | 0.2 | 16.4 | 40.8 |
| HCM LOS              |     |     | C    | E    |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 361   | 587   | -   | -   | 923   | -   | -   | 250   |
| HCM Lane V/C Ratio    | 0.126 | 0.072 | -   | -   | 0.031 | -   | -   | 0.627 |
| HCM Control Delay (s) | 16.4  | 11.6  | -   | -   | 9     | -   | -   | 40.8  |
| HCM Lane LOS          | C     | B     | -   | -   | A     | -   | -   | E     |
| HCM 95th %tile Q(veh) | 0.4   | 0.2   | -   | -   | 0.1   | -   | -   | 3.8   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑↑   |      |
| Traffic Vol, veh/h       | 1183 | 17   | 0    | 531  | 10   | 0    |
| Future Vol, veh/h        | 1183 | 17   | 0    | 531  | 10   | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 90   | 90   | 90   | 90   | 90   | 90   |
| Heavy Vehicles, %        | 1    | 8    | 2    | 1    | 14   | 2    |
| Mvmt Flow                | 1314 | 19   | 0    | 590  | 11   | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |      |
|----------------------|--------|--------|--------|---|------|------|
| Conflicting Flow All | 0      | 0      | 1333   | 0 | 1619 | 667  |
| Stage 1              | -      | -      | -      | - | 1324 | -    |
| Stage 2              | -      | -      | -      | - | 295  | -    |
| Critical Hdwy        | -      | -      | 4.14   | - | 7.08 | 6.94 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 6.08 | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 6.08 | -    |
| Follow-up Hdwy       | -      | -      | 2.22   | - | 3.64 | 3.32 |
| Pot Cap-1 Maneuver   | -      | -      | 513    | - | 83   | 401  |
| Stage 1              | -      | -      | -      | - | 192  | -    |
| Stage 2              | -      | -      | -      | - | 695  | -    |
| Platoon blocked, %   | -      | -      | -      | - | -    | -    |
| Mov Cap-1 Maneuver   | -      | -      | 513    | - | 83   | 401  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 83   | -    |
| Stage 1              | -      | -      | -      | - | 192  | -    |
| Stage 2              | -      | -      | -      | - | 695  | -    |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 55 |
| HCM LOS              |    |    | F  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 83    | -   | -   | 513 | -   |
| HCM Lane V/C Ratio    | 0.134 | -   | -   | -   | -   |
| HCM Control Delay (s) | 55    | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.4   | -   | -   | 0   | -   |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 1.5    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     | ↗    | ↘      | ↑↑    | ↘      |      |
| Traffic Vol, veh/h       | 1187   | 30   | 4      | 538   | 36     | 14   |
| Future Vol, veh/h        | 1187   | 30   | 4      | 538   | 36     | 14   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1290   | 33   | 4      | 585   | 39     | 15   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1323   | 0     | 1591   | 645  |
| Stage 1                  | -      | -    | -      | -     | 1290   | -    |
| Stage 2                  | -      | -    | -      | -     | 301    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 6.9  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 529    | -     | 100    | 420  |
| Stage 1                  | -      | -    | -      | -     | 226    | -    |
| Stage 2                  | -      | -    | -      | -     | 731    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 529    | -     | 99     | 420  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 99     | -    |
| Stage 1                  | -      | -    | -      | -     | 226    | -    |
| Stage 2                  | -      | -    | -      | -     | 725    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.1    |       | 53.7   |      |
| HCM LOS                  | F      |      |        |       |        |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 126    | -    | -      | 529   | -      |      |
| HCM Lane V/C Ratio       | 0.431  | -    | -      | 0.008 | -      |      |
| HCM Control Delay (s)    | 53.7   | -    | -      | 11.9  | -      |      |
| HCM Lane LOS             | F      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 1.9    | -    | -      | 0     | -      |      |



| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 22.3                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |  |  |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 103                                                                               | 1103                                                                              | 44                                                                                | 23                                                                                | 549                                                                               | 1    | 26   | 7                                                                                 | 111  | 2    | 2                                                                                   | 70   |
| Future Vol, veh/h        | 103                                                                               | 1103                                                                              | 44                                                                                | 23                                                                                | 549                                                                               | 1    | 26   | 7                                                                                 | 111  | 2    | 2                                                                                   | 70   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87   | 87   | 87                                                                                | 87   | 87   | 87                                                                                  | 87   |
| Heavy Vehicles, %        | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Mvmt Flow                | 118                                                                               | 1268                                                                              | 51                                                                                | 26                                                                                | 631                                                                               | 1    | 30   | 8                                                                                 | 128  | 2    | 2                                                                                   | 80   |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |     |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|-----|
| Conflicting Flow All | 632    | 0 | 0 | 1319   | 0 | 0 | 1873   | 2188 | 634 | 1558   | 2239 | 316 |
| Stage 1              | -      | - | - | -      | - | - | 1504   | 1504 | -   | 684    | 684  | -   |
| Stage 2              | -      | - | - | -      | - | - | 369    | 684  | -   | 874    | 1555 | -   |
| Critical Hdwy        | 4.12   | - | - | 4.1    | - | - | 7.5    | 6.5  | 6.9 | 7.5    | 6.5  | 6.9 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Follow-up Hdwy       | 2.21   | - | - | 2.2    | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3 |
| Pot Cap-1 Maneuver   | 953    | - | - | 531    | - | - | 45     | 46   | 427 | 78     | 43   | 686 |
| Stage 1              | -      | - | - | -      | - | - | 130    | 186  | -   | 410    | 452  | -   |
| Stage 2              | -      | - | - | -      | - | - | 629    | 452  | -   | 315    | 176  | -   |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -   | -      | -    | -   |
| Mov Cap-1 Maneuver   | 953    | - | - | 531    | - | - | 33     | 38   | 427 | 40     | 36   | 686 |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 33     | 38   | -   | 40     | 36   | -   |
| Stage 1              | -      | - | - | -      | - | - | 114    | 163  | -   | 359    | 430  | -   |
| Stage 2              | -      | - | - | -      | - | - | 525    | 430  | -   | 184    | 154  | -   |

| Approach             | EB  |  |  | WB  |  |  | NB    |  |  | SB   |  |  |
|----------------------|-----|--|--|-----|--|--|-------|--|--|------|--|--|
| HCM Control Delay, s | 0.8 |  |  | 0.5 |  |  | 297.3 |  |  | 18.3 |  |  |
| HCM LOS              |     |  |  |     |  |  | F     |  |  | C    |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL  | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|------|-----|-----|-------|
| Capacity (veh/h)      | 117   | 953   | -   | -   | 531  | -   | -   | 356   |
| HCM Lane V/C Ratio    | 1.415 | 0.124 | -   | -   | 0.05 | -   | -   | 0.239 |
| HCM Control Delay (s) | 297.3 | 9.3   | -   | -   | 12.1 | -   | -   | 18.3  |
| HCM Lane LOS          | F     | A     | -   | -   | B    | -   | -   | C     |
| HCM 95th %tile Q(veh) | 11.5  | 0.4   | -   | -   | 0.2  | -   | -   | 0.9   |

**BUILD**

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑    |      |
| Traffic Vol, veh/h       | 693  | 11   | 1    | 958  | 15   | 3    |
| Future Vol, veh/h        | 693  | 11   | 1    | 958  | 15   | 3    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 7    | 11   | 0    | 2    | 0    | 33   |
| Mvmt Flow                | 753  | 12   | 1    | 1041 | 16   | 3    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |      |
|----------------------|--------|--------|--------|---|------|------|
| Conflicting Flow All | 0      | 0      | 765    | 0 | 1282 | 383  |
| Stage 1              | -      | -      | -      | - | 759  | -    |
| Stage 2              | -      | -      | -      | - | 523  | -    |
| Critical Hdwy        | -      | -      | 4.1    | - | 6.8  | 7.56 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.8  | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.8  | -    |
| Follow-up Hdwy       | -      | -      | 2.2    | - | 3.5  | 3.63 |
| Pot Cap-1 Maneuver   | -      | -      | 857    | - | 160  | 535  |
| Stage 1              | -      | -      | -      | - | 428  | -    |
| Stage 2              | -      | -      | -      | - | 565  | -    |
| Platoon blocked, %   | -      | -      | -      | - | -    | -    |
| Mov Cap-1 Maneuver   | -      | -      | 857    | - | 160  | 535  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 160  | -    |
| Stage 1              | -      | -      | -      | - | 428  | -    |
| Stage 2              | -      | -      | -      | - | 563  | -    |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 27.3 |
| HCM LOS              |    |    | D    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 181   | -   | -   | 857   | -   |
| HCM Lane V/C Ratio    | 0.108 | -   | -   | 0.001 | -   |
| HCM Control Delay (s) | 27.3  | -   | -   | 9.2   | 0   |
| HCM Lane LOS          | D     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.4   | -   | -   | 0     | -   |

| Intersection               |        |                        |        |                            |        |                                |
|----------------------------|--------|------------------------|--------|----------------------------|--------|--------------------------------|
| Int Delay, s/veh           | 16.8   |                        |        |                            |        |                                |
| Movement                   | EBT    | EBR                    | WBL    | WBT                        | NBL    | NBR                            |
| Lane Configurations        | ↑↑     | ↗                      | ↘      | ↑↑                         | ↘↗     |                                |
| Traffic Vol, veh/h         | 516    | 77                     | 82     | 1039                       | 90     | 72                             |
| Future Vol, veh/h          | 516    | 77                     | 82     | 1039                       | 90     | 72                             |
| Conflicting Peds, #/hr     | 0      | 0                      | 0      | 0                          | 0      | 0                              |
| Sign Control               | Free   | Free                   | Free   | Free                       | Stop   | Stop                           |
| RT Channelized             | -      | None                   | -      | None                       | -      | None                           |
| Storage Length             | -      | 200                    | 150    | -                          | 0      | -                              |
| Veh in Median Storage, #   | 0      | -                      | -      | 0                          | 0      | -                              |
| Grade, %                   | 0      | -                      | -      | 0                          | 0      | -                              |
| Peak Hour Factor           | 83     | 83                     | 83     | 83                         | 83     | 83                             |
| Heavy Vehicles, %          | 4      | 3                      | 3      | 2                          | 9      | 10                             |
| Mvmt Flow                  | 622    | 93                     | 99     | 1252                       | 108    | 87                             |
|                            |        |                        |        |                            |        |                                |
| Major/Minor                | Major1 |                        | Major2 |                            | Minor1 |                                |
| Conflicting Flow All       | 0      | 0                      | 715    | 0                          | 1446   | 311                            |
| Stage 1                    | -      | -                      | -      | -                          | 622    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 824    | -                              |
| Critical Hdwy              | -      | -                      | 4.16   | -                          | 6.98   | 7.1                            |
| Critical Hdwy Stg 1        | -      | -                      | -      | -                          | 5.98   | -                              |
| Critical Hdwy Stg 2        | -      | -                      | -      | -                          | 5.98   | -                              |
| Follow-up Hdwy             | -      | -                      | 2.23   | -                          | 3.59   | 3.4                            |
| Pot Cap-1 Maneuver         | -      | -                      | 875    | -                          | 115    | 662                            |
| Stage 1                    | -      | -                      | -      | -                          | 479    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 374    | -                              |
| Platoon blocked, %         | -      | -                      |        | -                          |        |                                |
| Mov Cap-1 Maneuver         | -      | -                      | 875    | - ~                        | 102    | 662                            |
| Mov Cap-2 Maneuver         | -      | -                      | -      | - ~                        | 102    | -                              |
| Stage 1                    | -      | -                      | -      | -                          | 479    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 332    | -                              |
|                            |        |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Approach                   | EB     |                        | WB     |                            | NB     |                                |
| HCM Control Delay, s       | 0      |                        | 0.7    |                            | 189.3  |                                |
| HCM LOS                    |        |                        |        |                            | F      |                                |
|                            |        |                        |        |                            |        |                                |
| Minor Lane/Major Mvmt      | NBLn1  | EBT                    | EBR    | WBL                        | WBT    |                                |
| Capacity (veh/h)           | 163    | -                      | -      | 875                        | -      |                                |
| HCM Lane V/C Ratio         | 1.197  | -                      | -      | 0.113                      | -      |                                |
| HCM Control Delay (s)      | 189.3  | -                      | -      | 9.6                        | -      |                                |
| HCM Lane LOS               | F      | -                      | -      | A                          | -      |                                |
| HCM 95th %tile Q(veh)      | 10.8   | -                      | -      | 0.4                        | -      |                                |
| Notes                      |        |                        |        |                            |        |                                |
| ~: Volume exceeds capacity |        | \$: Delay exceeds 300s |        | +: Computation Not Defined |        | *: All major volume in platoon |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 3.1                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |      |  |      |      |  |  |
| Traffic Vol, veh/h       | 33                                                                                | 546                                                                               | 3                                                                                 | 28                                                                                | 1095                                                                              | 6                                                                                 | 3    | 0                                                                                 | 34   | 14   | 1                                                                                 | 108                                                                               |
| Future Vol, veh/h        | 33                                                                                | 546                                                                               | 3                                                                                 | 28                                                                                | 1095                                                                              | 6                                                                                 | 3    | 0                                                                                 | 34   | 14   | 1                                                                                 | 108                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop | Stop                                                                              | Stop | Stop | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None                                                                              | -    | -                                                                                 | None | -    | -                                                                                 | None                                                                              |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 | -                                                                                 |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90   | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                |
| Heavy Vehicles, %        | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                | 37                                                                                | 607                                                                               | 3                                                                                 | 31                                                                                | 1217                                                                              | 7                                                                                 | 3    | 0                                                                                 | 38   | 16   | 1                                                                                 | 120                                                                               |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |     |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|-----|
| Conflicting Flow All | 1224   | 0 | 0 | 610    | 0 | 0 | 1352   | 1967 | 304 | 1661   | 1967 | 612 |
| Stage 1              | -      | - | - | -      | - | - | 681    | 681  | -   | 1283   | 1283 | -   |
| Stage 2              | -      | - | - | -      | - | - | 671    | 1286 | -   | 378    | 684  | -   |
| Critical Hdwy        | 4.1    | - | - | 4.2    | - | - | 7.5    | 6.5  | 6.9 | 7.5    | 6.5  | 6.9 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Follow-up Hdwy       | 2.2    | - | - | 2.25   | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3 |
| Pot Cap-1 Maneuver   | 577    | - | - | 945    | - | - | 111    | 64   | 698 | 65     | 64   | 441 |
| Stage 1              | -      | - | - | -      | - | - | 411    | 453  | -   | 178    | 238  | -   |
| Stage 2              | -      | - | - | -      | - | - | 417    | 237  | -   | 621    | 452  | -   |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -   | -      | -    | -   |
| Mov Cap-1 Maneuver   | 577    | - | - | 945    | - | - | 74     | 58   | 698 | 57     | 58   | 441 |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 74     | 58   | -   | 57     | 58   | -   |
| Stage 1              | -      | - | - | -      | - | - | 385    | 424  | -   | 167    | 230  | -   |
| Stage 2              | -      | - | - | -      | - | - | 292    | 229  | -   | 550    | 423  | -   |

| Approach             | EB  | WB  | NB   | SB   |
|----------------------|-----|-----|------|------|
| HCM Control Delay, s | 0.7 | 0.2 | 14.6 | 37.6 |
| HCM LOS              |     |     | B    | E    |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 415   | 577   | -   | -   | 945   | -   | -   | 242   |
| HCM Lane V/C Ratio    | 0.099 | 0.064 | -   | -   | 0.033 | -   | -   | 0.565 |
| HCM Control Delay (s) | 14.6  | 11.7  | -   | -   | 8.9   | -   | -   | 37.6  |
| HCM Lane LOS          | B     | B     | -   | -   | A     | -   | -   | E     |
| HCM 95th %tile Q(veh) | 0.3   | 0.2   | -   | -   | 0.1   | -   | -   | 3.1   |



| Intersection               |          |                        |        |                            |          |                                |
|----------------------------|----------|------------------------|--------|----------------------------|----------|--------------------------------|
| Int Delay, s/veh           | 92.1     |                        |        |                            |          |                                |
| Movement                   | EBT      | EBR                    | WBL    | WBT                        | NBL      | NBR                            |
| Lane Configurations        | ↑↑       |                        |        | ↑↑                         | ↑↑       |                                |
| Traffic Vol, veh/h         | 518      | 70                     | 62     | 911                        | 210      | 185                            |
| Future Vol, veh/h          | 518      | 70                     | 62     | 911                        | 210      | 185                            |
| Conflicting Peds, #/hr     | 0        | 0                      | 0      | 0                          | 0        | 0                              |
| Sign Control               | Free     | Free                   | Free   | Free                       | Stop     | Stop                           |
| RT Channelized             | -        | None                   | -      | None                       | -        | None                           |
| Storage Length             | -        | -                      | -      | -                          | 0        | -                              |
| Veh in Median Storage, #   | 0        | -                      | -      | 0                          | 0        | -                              |
| Grade, %                   | 0        | -                      | -      | 0                          | 0        | -                              |
| Peak Hour Factor           | 92       | 92                     | 92     | 92                         | 92       | 92                             |
| Heavy Vehicles, %          | 2        | 2                      | 2      | 2                          | 2        | 2                              |
| Mvmt Flow                  | 563      | 76                     | 67     | 990                        | 228      | 201                            |
|                            |          |                        |        |                            |          |                                |
| Major/Minor                | Major1   |                        | Major2 |                            | Minor1   |                                |
| Conflicting Flow All       | 0        | 0                      | 639    | 0                          | 1230     | 320                            |
| Stage 1                    | -        | -                      | -      | -                          | 601      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 629      | -                              |
| Critical Hdwy              | -        | -                      | 4.14   | -                          | 6.84     | 6.94                           |
| Critical Hdwy Stg 1        | -        | -                      | -      | -                          | 5.84     | -                              |
| Critical Hdwy Stg 2        | -        | -                      | -      | -                          | 5.84     | -                              |
| Follow-up Hdwy             | -        | -                      | 2.22   | -                          | 3.52     | 3.32                           |
| Pot Cap-1 Maneuver         | -        | -                      | 941    | -                          | ~ 170    | 676                            |
| Stage 1                    | -        | -                      | -      | -                          | 510      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 494      | -                              |
| Platoon blocked, %         | -        | -                      |        | -                          |          |                                |
| Mov Cap-1 Maneuver         | -        | -                      | 941    | -                          | ~ 143    | 676                            |
| Mov Cap-2 Maneuver         | -        | -                      | -      | -                          | ~ 143    | -                              |
| Stage 1                    | -        | -                      | -      | -                          | 510      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 416      | -                              |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Approach                   | EB       |                        | WB     |                            | NB       |                                |
| HCM Control Delay, s       | 0        |                        | 1.1    |                            | \$ 453.2 |                                |
| HCM LOS                    |          |                        |        |                            | F        |                                |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Minor Lane/Major Mvmt      | NBLn1    | EBT                    | EBR    | WBL                        | WBT      |                                |
| Capacity (veh/h)           | 227      | -                      | -      | 941                        | -        |                                |
| HCM Lane V/C Ratio         | 1.891    | -                      | -      | 0.072                      | -        |                                |
| HCM Control Delay (s)      | \$ 453.2 | -                      | -      | 9.1                        | 0.6      |                                |
| HCM Lane LOS               | F        | -                      | -      | A                          | A        |                                |
| HCM 95th %tile Q(veh)      | 30.6     | -                      | -      | 0.2                        | -        |                                |
| Notes                      |          |                        |        |                            |          |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |        | +: Computation Not Defined |          | *: All major volume in platoon |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.2  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑    |      |
| Traffic Vol, veh/h       | 1144 | 15   | 0    | 666  | 8    | 0    |
| Future Vol, veh/h        | 1144 | 15   | 0    | 666  | 8    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 90   | 90   | 90   | 90   | 90   | 90   |
| Heavy Vehicles, %        | 1    | 8    | 2    | 1    | 14   | 2    |
| Mvmt Flow                | 1271 | 17   | 0    | 740  | 9    | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1288   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.14   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.22   |
| Pot Cap-1 Maneuver   | -      | -      | 534    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 534    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 56.3 |
| HCM LOS              |    |    | F    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 79    | -   | -   | 534 | -   |
| HCM Lane V/C Ratio    | 0.113 | -   | -   | -   | -   |
| HCM Control Delay (s) | 56.3  | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.4   | -   | -   | 0   | -   |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 2.4    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     | ↑    | ↓      | ↑↑    | ↓      |      |
| Traffic Vol, veh/h       | 1219   | 25   | 27     | 580   | 31     | 52   |
| Future Vol, veh/h        | 1219   | 25   | 27     | 580   | 31     | 52   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1325   | 27   | 29     | 630   | 34     | 57   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1352   | 0     | 1698   | 663  |
| Stage 1                  | -      | -    | -      | -     | 1325   | -    |
| Stage 2                  | -      | -    | -      | -     | 373    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 6.9  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 516    | -     | 85     | 409  |
| Stage 1                  | -      | -    | -      | -     | 216    | -    |
| Stage 2                  | -      | -    | -      | -     | 672    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 516    | -     | 80     | 409  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 80     | -    |
| Stage 1                  | -      | -    | -      | -     | 216    | -    |
| Stage 2                  | -      | -    | -      | -     | 634    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.6    |       | 52.6   |      |
| HCM LOS                  | F      |      |        |       |        |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 161    | -    | -      | 516   | -      |      |
| HCM Lane V/C Ratio       | 0.56   | -    | -      | 0.057 | -      |      |
| HCM Control Delay (s)    | 52.6   | -    | -      | 12.4  | -      |      |
| HCM Lane LOS             | F      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 2.9    | -    | -      | 0.2   | -      |      |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|------|--------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 16.4                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL    | NBT                                                                               | NBR  | SBL    | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |  |  |  |      |        |  |      |        |  |      |
| Traffic Vol, veh/h       | 89                                                                                | 1138                                                                              | 38                                                                                | 24                                                                                | 584                                                                               | 3    | 22     | 6                                                                                 | 102  | 4      | 2                                                                                   | 60   |
| Future Vol, veh/h        | 89                                                                                | 1138                                                                              | 38                                                                                | 24                                                                                | 584                                                                               | 3    | 22     | 6                                                                                 | 102  | 4      | 2                                                                                   | 60   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0      | 0                                                                                 | 0    | 0      | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop   | Stop                                                                              | Stop | Stop   | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -      | -                                                                                 | None | -      | -                                                                                   | None |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -      | -                                                                                 | -    | -      | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -    | -      | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -    | -      | 0                                                                                   | -    |
| Peak Hour Factor         | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87   | 87     | 87                                                                                | 87   | 87     | 87                                                                                  | 87   |
| Heavy Vehicles, %        | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0    | 0      | 0                                                                                 | 0    | 0      | 0                                                                                   | 0    |
| Mvmt Flow                | 102                                                                               | 1308                                                                              | 44                                                                                | 28                                                                                | 671                                                                               | 3    | 25     | 7                                                                                 | 117  | 5      | 2                                                                                   | 69   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
| Major/Minor              | Major1                                                                            |                                                                                   |                                                                                   | Major2                                                                            |                                                                                   |      | Minor1 |                                                                                   |      | Minor2 |                                                                                     |      |
| Conflicting Flow All     | 674                                                                               | 0                                                                                 | 0                                                                                 | 1352                                                                              | 0                                                                                 | 0    | 1905   | 2242                                                                              | 654  | 1591   | 2285                                                                                | 337  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 1512   | 1512                                                                              | -    | 729    | 729                                                                                 | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 393    | 730                                                                               | -    | 862    | 1556                                                                                | -    |
| Critical Hdwy            | 4.12                                                                              | -                                                                                 | -                                                                                 | 4.1                                                                               | -                                                                                 | -    | 7.5    | 6.5                                                                               | 6.9  | 7.5    | 6.5                                                                                 | 6.9  |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.5    | 5.5                                                                               | -    | 6.5    | 5.5                                                                                 | -    |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.5    | 5.5                                                                               | -    | 6.5    | 5.5                                                                                 | -    |
| Follow-up Hdwy           | 2.21                                                                              | -                                                                                 | -                                                                                 | 2.2                                                                               | -                                                                                 | -    | 3.5    | 4                                                                                 | 3.3  | 3.5    | 4                                                                                   | 3.3  |
| Pot Cap-1 Maneuver       | 920                                                                               | -                                                                                 | -                                                                                 | 516                                                                               | -                                                                                 | -    | 43     | 43                                                                                | 414  | 73     | 40                                                                                  | 665  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 128    | 184                                                                               | -    | 385    | 431                                                                                 | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 609    | 431                                                                               | -    | 320    | 176                                                                                 | -    |
| Platoon blocked, %       |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 | -    |        |                                                                                   |      |        |                                                                                     |      |
| Mov Cap-1 Maneuver       | 920                                                                               | -                                                                                 | -                                                                                 | 516                                                                               | -                                                                                 | -    | 32     | 36                                                                                | 414  | 39     | 34                                                                                  | 665  |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 32     | 36                                                                                | -    | 39     | 34                                                                                  | -    |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 114    | 164                                                                               | -    | 342    | 408                                                                                 | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 513    | 408                                                                               | -    | 195    | 156                                                                                 | -    |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
| Approach                 | EB                                                                                |                                                                                   |                                                                                   | WB                                                                                |                                                                                   |      | NB     |                                                                                   |      | SB     |                                                                                     |      |
| HCM Control Delay, s     | 0.7                                                                               |                                                                                   |                                                                                   | 0.5                                                                               |                                                                                   |      | 240.3  |                                                                                   |      | 24.2   |                                                                                     |      |
| HCM LOS                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      | F      |                                                                                   |      | C      |                                                                                     |      |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT  | WBR    | SBLn1                                                                             |      |        |                                                                                     |      |
| Capacity (veh/h)         | 118                                                                               | 920                                                                               | -                                                                                 | -                                                                                 | 516                                                                               | -    | -      | 262                                                                               |      |        |                                                                                     |      |
| HCM Lane V/C Ratio       | 1.266                                                                             | 0.111                                                                             | -                                                                                 | -                                                                                 | 0.053                                                                             | -    | -      | 0.29                                                                              |      |        |                                                                                     |      |
| HCM Control Delay (s)    | 240.3                                                                             | 9.4                                                                               | -                                                                                 | -                                                                                 | 12.4                                                                              | -    | -      | 24.2                                                                              |      |        |                                                                                     |      |
| HCM Lane LOS             | F                                                                                 | A                                                                                 | -                                                                                 | -                                                                                 | B                                                                                 | -    | -      | C                                                                                 |      |        |                                                                                     |      |
| HCM 95th %tile Q(veh)    | 9.7                                                                               | 0.4                                                                               | -                                                                                 | -                                                                                 | 0.2                                                                               | -    | -      | 1.2                                                                               |      |        |                                                                                     |      |

| Intersection               |         |                        |        |                            |         |                                |
|----------------------------|---------|------------------------|--------|----------------------------|---------|--------------------------------|
| Int Delay, s/veh           | 406     |                        |        |                            |         |                                |
| Movement                   | EBT     | EBR                    | WBL    | WBT                        | NBL     | NBR                            |
| Lane Configurations        | ↑↑      |                        |        | ↑↑                         | ↑↑      |                                |
| Traffic Vol, veh/h         | 1035    | 236                    | 208    | 466                        | 141     | 124                            |
| Future Vol, veh/h          | 1035    | 236                    | 208    | 466                        | 141     | 124                            |
| Conflicting Peds, #/hr     | 0       | 0                      | 0      | 0                          | 0       | 0                              |
| Sign Control               | Free    | Free                   | Free   | Free                       | Stop    | Stop                           |
| RT Channelized             | -       | None                   | -      | None                       | -       | None                           |
| Storage Length             | -       | -                      | -      | -                          | 0       | -                              |
| Veh in Median Storage, #   | 0       | -                      | -      | 0                          | 0       | -                              |
| Grade, %                   | 0       | -                      | -      | 0                          | 0       | -                              |
| Peak Hour Factor           | 92      | 92                     | 92     | 92                         | 92      | 92                             |
| Heavy Vehicles, %          | 2       | 2                      | 2      | 2                          | 2       | 2                              |
| Mvmt Flow                  | 1125    | 257                    | 226    | 507                        | 153     | 135                            |
|                            |         |                        |        |                            |         |                                |
| Major/Minor                | Major1  |                        | Major2 |                            | Minor1  |                                |
| Conflicting Flow All       | 0       | 0                      | 1382   | 0                          | 1960    | 691                            |
| Stage 1                    | -       | -                      | -      | -                          | 1254    | -                              |
| Stage 2                    | -       | -                      | -      | -                          | 706     | -                              |
| Critical Hdwy              | -       | -                      | 4.14   | -                          | 6.84    | 6.94                           |
| Critical Hdwy Stg 1        | -       | -                      | -      | -                          | 5.84    | -                              |
| Critical Hdwy Stg 2        | -       | -                      | -      | -                          | 5.84    | -                              |
| Follow-up Hdwy             | -       | -                      | 2.22   | -                          | 3.52    | 3.32                           |
| Pot Cap-1 Maneuver         | -       | -                      | 492    | -                          | ~ 55    | 387                            |
| Stage 1                    | -       | -                      | -      | -                          | 232     | -                              |
| Stage 2                    | -       | -                      | -      | -                          | 450     | -                              |
| Platoon blocked, %         | -       | -                      |        | -                          |         |                                |
| Mov Cap-1 Maneuver         | -       | -                      | 492    | -                          | ~ 20    | 387                            |
| Mov Cap-2 Maneuver         | -       | -                      | -      | -                          | ~ 20    | -                              |
| Stage 1                    | -       | -                      | -      | -                          | 232     | -                              |
| Stage 2                    | -       | -                      | -      | -                          | 162     | -                              |
|                            |         |                        |        |                            |         |                                |
|                            |         |                        |        |                            |         |                                |
| Approach                   | EB      |                        | WB     |                            | NB      |                                |
| HCM Control Delay, s       | 0       |                        | 7.8    |                            | \$ 3366 |                                |
| HCM LOS                    |         |                        |        |                            | F       |                                |
|                            |         |                        |        |                            |         |                                |
|                            |         |                        |        |                            |         |                                |
| Minor Lane/Major Mvmt      | NBLn1   | EBT                    | EBR    | WBL                        | WBT     |                                |
| Capacity (veh/h)           | 36      | -                      | -      | 492                        | -       |                                |
| HCM Lane V/C Ratio         | 8.001   | -                      | -      | 0.46                       | -       |                                |
| HCM Control Delay (s)      | \$ 3366 | -                      | -      | 18.4                       | 3.1     |                                |
| HCM Lane LOS               | F       | -                      | -      | C                          | A       |                                |
| HCM 95th %tile Q(veh)      | 34.6    | -                      | -      | 2.4                        | -       |                                |
| Notes                      |         |                        |        |                            |         |                                |
| ~: Volume exceeds capacity |         | \$: Delay exceeds 300s |        | +: Computation Not Defined |         | *: All major volume in platoon |



| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑↑   |      |
| Traffic Vol, veh/h       | 779  | 11   | 1    | 1043 | 16   | 3    |
| Future Vol, veh/h        | 779  | 11   | 1    | 1043 | 16   | 3    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 7    | 11   | 0    | 2    | 0    | 33   |
| Mvmt Flow                | 847  | 12   | 1    | 1134 | 17   | 3    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 859    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.1    |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.2    |
| Pot Cap-1 Maneuver   | -      | -      | 791    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 791    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 33.7 |
| HCM LOS              |    |    | D    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 146   | -   | -   | 791   | -   |
| HCM Lane V/C Ratio    | 0.141 | -   | -   | 0.001 | -   |
| HCM Control Delay (s) | 33.7  | -   | -   | 9.6   | 0   |
| HCM Lane LOS          | D     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.5   | -   | -   | 0     | -   |

| Intersection               |          |                        |        |                            |          |                                |
|----------------------------|----------|------------------------|--------|----------------------------|----------|--------------------------------|
| Int Delay, s/veh           | 33.4     |                        |        |                            |          |                                |
| Movement                   | EBT      | EBR                    | WBL    | WBT                        | NBL      | NBR                            |
| Lane Configurations        | ↑↑       | ↗                      | ↖      | ↑↑                         | ↘        |                                |
| Traffic Vol, veh/h         | 567      | 83                     | 94     | 1150                       | 97       | 80                             |
| Future Vol, veh/h          | 567      | 83                     | 94     | 1150                       | 97       | 80                             |
| Conflicting Peds, #/hr     | 0        | 0                      | 0      | 0                          | 0        | 0                              |
| Sign Control               | Free     | Free                   | Free   | Free                       | Stop     | Stop                           |
| RT Channelized             | -        | None                   | -      | None                       | -        | None                           |
| Storage Length             | -        | 200                    | 150    | -                          | 0        | -                              |
| Veh in Median Storage, #   | 0        | -                      | -      | 0                          | 0        | -                              |
| Grade, %                   | 0        | -                      | -      | 0                          | 0        | -                              |
| Peak Hour Factor           | 83       | 83                     | 83     | 83                         | 83       | 83                             |
| Heavy Vehicles, %          | 4        | 3                      | 3      | 2                          | 9        | 10                             |
| Mvmt Flow                  | 683      | 100                    | 113    | 1386                       | 117      | 96                             |
|                            |          |                        |        |                            |          |                                |
| Major/Minor                | Major1   |                        | Major2 |                            | Minor1   |                                |
| Conflicting Flow All       | 0        | 0                      | 783    | 0                          | 1602     | 342                            |
| Stage 1                    | -        | -                      | -      | -                          | 683      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 919      | -                              |
| Critical Hdwy              | -        | -                      | 4.16   | -                          | 6.98     | 7.1                            |
| Critical Hdwy Stg 1        | -        | -                      | -      | -                          | 5.98     | -                              |
| Critical Hdwy Stg 2        | -        | -                      | -      | -                          | 5.98     | -                              |
| Follow-up Hdwy             | -        | -                      | 2.23   | -                          | 3.59     | 3.4                            |
| Pot Cap-1 Maneuver         | -        | -                      | 824    | -                          | ~ 90     | 631                            |
| Stage 1                    | -        | -                      | -      | -                          | 445      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 333      | -                              |
| Platoon blocked, %         | -        | -                      |        | -                          |          |                                |
| Mov Cap-1 Maneuver         | -        | -                      | 824    | -                          | ~ 78     | 631                            |
| Mov Cap-2 Maneuver         | -        | -                      | -      | -                          | ~ 78     | -                              |
| Stage 1                    | -        | -                      | -      | -                          | 445      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 287      | -                              |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Approach                   | EB       |                        | WB     |                            | NB       |                                |
| HCM Control Delay, s       | 0        |                        | 0.8    |                            | \$ 385.7 |                                |
| HCM LOS                    | F        |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Minor Lane/Major Mvmt      | NBLn1    | EBT                    | EBR    | WBL                        | WBT      |                                |
| Capacity (veh/h)           | 129      | -                      | -      | 824                        | -        |                                |
| HCM Lane V/C Ratio         | 1.653    | -                      | -      | 0.137                      | -        |                                |
| HCM Control Delay (s)      | \$ 385.7 | -                      | -      | 10.1                       | -        |                                |
| HCM Lane LOS               | F        | -                      | -      | B                          | -        |                                |
| HCM 95th %tile Q(veh)      | 15.6     | -                      | -      | 0.5                        | -        |                                |
| Notes                      |          |                        |        |                            |          |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |        | +: Computation Not Defined |          | *: All major volume in platoon |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 4.7                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |  |  |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 35                                                                                | 599                                                                               | 3                                                                                 | 32                                                                                | 1208                                                                              | 8    | 3    | 0                                                                                 | 37   | 15   | 1                                                                                   | 116  |
| Future Vol, veh/h        | 35                                                                                | 599                                                                               | 3                                                                                 | 32                                                                                | 1208                                                                              | 8    | 3    | 0                                                                                 | 37   | 15   | 1                                                                                   | 116  |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90   | 90   | 90                                                                                | 90   | 90   | 90                                                                                  | 90   |
| Heavy Vehicles, %        | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Mvmt Flow                | 39                                                                                | 666                                                                               | 3                                                                                 | 36                                                                                | 1342                                                                              | 9    | 3    | 0                                                                                 | 41   | 17   | 1                                                                                   | 129  |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |     |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|-----|
| Conflicting Flow All | 1351   | 0 | 0 | 669    | 0 | 0 | 1488   | 2167 | 333 | 1830   | 2166 | 676 |
| Stage 1              | -      | - | - | -      | - | - | 744    | 744  | -   | 1419   | 1419 | -   |
| Stage 2              | -      | - | - | -      | - | - | 744    | 1423 | -   | 411    | 747  | -   |
| Critical Hdwy        | 4.1    | - | - | 4.2    | - | - | 7.5    | 6.5  | 6.9 | 7.5    | 6.5  | 6.9 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Follow-up Hdwy       | 2.2    | - | - | 2.25   | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3 |
| Pot Cap-1 Maneuver   | 516    | - | - | 897    | - | - | 88     | 48   | 669 | 49     | 48   | 401 |
| Stage 1              | -      | - | - | -      | - | - | 377    | 424  | -   | 146    | 205  | -   |
| Stage 2              | -      | - | - | -      | - | - | 377    | 204  | -   | 594    | 423  | -   |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -   | -      | -    | -   |
| Mov Cap-1 Maneuver   | 516    | - | - | 897    | - | - | 54     | 43   | 669 | 42     | 43   | 401 |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 54     | 43   | -   | 42     | 43   | -   |
| Stage 1              | -      | - | - | -      | - | - | 348    | 392  | -   | 135    | 197  | -   |
| Stage 2              | -      | - | - | -      | - | - | 244    | 196  | -   | 515    | 391  | -   |

| Approach             | EB  |  |  | WB  |  |  | NB   |  |  | SB   |  |  |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.7 |  |  | 0.2 |  |  | 16.4 |  |  | 62.9 |  |  |
| HCM LOS              |     |  |  |     |  |  | C    |  |  | F    |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL  | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|------|-----|-----|-------|
| Capacity (veh/h)      | 361   | 516   | -   | -   | 897  | -   | -   | 197   |
| HCM Lane V/C Ratio    | 0.123 | 0.075 | -   | -   | 0.04 | -   | -   | 0.745 |
| HCM Control Delay (s) | 16.4  | 12.5  | -   | -   | 9.2  | -   | -   | 62.9  |
| HCM Lane LOS          | C     | B     | -   | -   | A    | -   | -   | F     |
| HCM 95th %tile Q(veh) | 0.4   | 0.2   | -   | -   | 0.1  | -   | -   | 4.9   |

| Intersection               |        |                        |        |                            |        |                                |
|----------------------------|--------|------------------------|--------|----------------------------|--------|--------------------------------|
| Int Delay, s/veh           | 226    |                        |        |                            |        |                                |
| Movement                   | EBT    | EBR                    | WBL    | WBT                        | NBL    | NBR                            |
| Lane Configurations        | ↑↑     |                        |        | ↑↑                         | ↑↑     |                                |
| Traffic Vol, veh/h         | 557    | 90                     | 80     | 979                        | 265    | 233                            |
| Future Vol, veh/h          | 557    | 90                     | 80     | 979                        | 265    | 233                            |
| Conflicting Peds, #/hr     | 0      | 0                      | 0      | 0                          | 0      | 0                              |
| Sign Control               | Free   | Free                   | Free   | Free                       | Stop   | Stop                           |
| RT Channelized             | -      | None                   | -      | None                       | -      | None                           |
| Storage Length             | -      | -                      | -      | -                          | 0      | -                              |
| Veh in Median Storage, #   | 0      | -                      | -      | 0                          | 0      | -                              |
| Grade, %                   | 0      | -                      | -      | 0                          | 0      | -                              |
| Peak Hour Factor           | 92     | 92                     | 92     | 92                         | 92     | 92                             |
| Heavy Vehicles, %          | 2      | 2                      | 2      | 2                          | 2      | 2                              |
| Mvmt Flow                  | 605    | 98                     | 87     | 1064                       | 288    | 253                            |
|                            |        |                        |        |                            |        |                                |
| Major/Minor                | Major1 |                        | Major2 |                            | Minor1 |                                |
| Conflicting Flow All       | 0      | 0                      | 703    | 0                          | 1360   | 352                            |
| Stage 1                    | -      | -                      | -      | -                          | 654    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 706    | -                              |
| Critical Hdwy              | -      | -                      | 4.14   | -                          | 6.84   | 6.94                           |
| Critical Hdwy Stg 1        | -      | -                      | -      | -                          | 5.84   | -                              |
| Critical Hdwy Stg 2        | -      | -                      | -      | -                          | 5.84   | -                              |
| Follow-up Hdwy             | -      | -                      | 2.22   | -                          | 3.52   | 3.32                           |
| Pot Cap-1 Maneuver         | -      | -                      | 890    | -                          | ~ 140  | 644                            |
| Stage 1                    | -      | -                      | -      | -                          | 479    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 450    | -                              |
| Platoon blocked, %         | -      | -                      |        | -                          |        |                                |
| Mov Cap-1 Maneuver         | -      | -                      | 890    | -                          | ~ 107  | 644                            |
| Mov Cap-2 Maneuver         | -      | -                      | -      | -                          | ~ 107  | -                              |
| Stage 1                    | -      | -                      | -      | -                          | 479    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 342    | -                              |
|                            |        |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Approach                   | EB     |                        | WB     |                            | NB     |                                |
| HCM Control Delay, s       | 0      |                        | 1.6    |                            | \$ 997 |                                |
| HCM LOS                    |        |                        |        |                            | F      |                                |
|                            |        |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Minor Lane/Major Mvmt      | NBLn1  | EBT                    | EBR    | WBL                        | WBT    |                                |
| Capacity (veh/h)           | 175    | -                      | -      | 890                        | -      |                                |
| HCM Lane V/C Ratio         | 3.093  | -                      | -      | 0.098                      | -      |                                |
| HCM Control Delay (s)      | \$ 997 | -                      | -      | 9.5                        | 1      |                                |
| HCM Lane LOS               | F      | -                      | -      | A                          | A      |                                |
| HCM 95th %tile Q(veh)      | 49.9   | -                      | -      | 0.3                        | -      |                                |
| Notes                      |        |                        |        |                            |        |                                |
| ~: Volume exceeds capacity |        | \$: Delay exceeds 300s |        | +: Computation Not Defined |        | *: All major volume in platoon |

| Intersection             |        |      |        |      |        |      |
|--------------------------|--------|------|--------|------|--------|------|
| Int Delay, s/veh         | 0.3    |      |        |      |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT  | NBL    | NBR  |
| Lane Configurations      | ↑↑     |      |        | ↑↑   | ↑      |      |
| Traffic Vol, veh/h       | 1251   | 16   | 0      | 745  | 9      | 0    |
| Future Vol, veh/h        | 1251   | 16   | 0      | 745  | 9      | 0    |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0    | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free | Stop   | Stop |
| RT Channelized           | -      | None | -      | None | -      | None |
| Storage Length           | -      | -    | -      | -    | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0    | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0    | 0      | -    |
| Peak Hour Factor         | 90     | 90   | 90     | 90   | 90     | 90   |
| Heavy Vehicles, %        | 1      | 8    | 2      | 1    | 14     | 2    |
| Mvmt Flow                | 1390   | 18   | 0      | 828  | 10     | 0    |
|                          |        |      |        |      |        |      |
| Major/Minor              | Major1 |      | Major2 |      | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1408   | 0    | 1813   | 704  |
| Stage 1                  | -      | -    | -      | -    | 1399   | -    |
| Stage 2                  | -      | -    | -      | -    | 414    | -    |
| Critical Hdwy            | -      | -    | 4.14   | -    | 7.08   | 6.94 |
| Critical Hdwy Stg 1      | -      | -    | -      | -    | 6.08   | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -    | 6.08   | -    |
| Follow-up Hdwy           | -      | -    | 2.22   | -    | 3.64   | 3.32 |
| Pot Cap-1 Maneuver       | -      | -    | 481    | -    | 61     | 379  |
| Stage 1                  | -      | -    | -      | -    | 174    | -    |
| Stage 2                  | -      | -    | -      | -    | 602    | -    |
| Platoon blocked, %       | -      | -    |        | -    |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 481    | -    | 61     | 379  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -    | 61     | -    |
| Stage 1                  | -      | -    | -      | -    | 174    | -    |
| Stage 2                  | -      | -    | -      | -    | 602    | -    |
|                          |        |      |        |      |        |      |
|                          |        |      |        |      |        |      |
| Approach                 | EB     |      | WB     |      | NB     |      |
| HCM Control Delay, s     | 0      |      | 0      |      | 75.3   |      |
| HCM LOS                  |        |      |        |      | F      |      |
|                          |        |      |        |      |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL  | WBT    |      |
| Capacity (veh/h)         | 61     | -    | -      | 481  | -      |      |
| HCM Lane V/C Ratio       | 0.164  | -    | -      | -    | -      |      |
| HCM Control Delay (s)    | 75.3   | -    | -      | 0    | -      |      |
| HCM Lane LOS             | F      | -    | -      | A    | -      |      |
| HCM 95th %tile Q(veh)    | 0.5    | -    | -      | 0    | -      |      |



Intersection

Int Delay, s/veh 4.3

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑   | ↑    | ↑    | ↑↑   | ↑    | ↑    |
| Traffic Vol, veh/h       | 1339 | 27   | 33   | 644  | 33   | 62   |
| Future Vol, veh/h        | 1339 | 27   | 33   | 644  | 33   | 62   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | 200  | 150  | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 9    | 0    | 0    | 2    | 0    | 0    |
| Mvmt Flow                | 1455 | 29   | 36   | 700  | 36   | 67   |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1484   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.1    |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.2    |
| Pot Cap-1 Maneuver   | -      | -      | 459    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 459    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.7 | 92.8 |
| HCM LOS              |    |     | F    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 132   | -   | -   | 459   | -   |
| HCM Lane V/C Ratio    | 0.782 | -   | -   | 0.078 | -   |
| HCM Control Delay (s) | 92.8  | -   | -   | 13.5  | -   |
| HCM Lane LOS          | F     | -   | -   | B     | -   |
| HCM 95th %tile Q(veh) | 4.7   | -   | -   | 0.3   | -   |

| Intersection               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |          |                                                                                   |                                |        |                                                                                     |      |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|--------------------------------|--------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh           | 35.2                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |          |                                                                                   |                                |        |                                                                                     |      |
| Movement                   | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL      | NBT                                                                               | NBR                            | SBL    | SBT                                                                                 | SBR  |
| Lane Configurations        |  |  |  |  |  |  |          |  |                                |        |  |      |
| Traffic Vol, veh/h         | 96                                                                                | 1250                                                                              | 41                                                                                | 27                                                                                | 647                                                                               | 3                                                                                 | 24       | 7                                                                                 | 112                            | 5      | 2                                                                                   | 65   |
| Future Vol, veh/h          | 96                                                                                | 1250                                                                              | 41                                                                                | 27                                                                                | 647                                                                               | 3                                                                                 | 24       | 7                                                                                 | 112                            | 5      | 2                                                                                   | 65   |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0        | 0                                                                                 | 0                              | 0      | 0                                                                                   | 0    |
| Sign Control               | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop     | Stop                                                                              | Stop                           | Stop   | Stop                                                                                | Stop |
| RT Channelized             | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None                                                                              | -        | -                                                                                 | None                           | -      | -                                                                                   | None |
| Storage Length             | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -                                                                                 | -        | -                                                                                 | -                              | -      | -                                                                                   | -    |
| Veh in Median Storage, #   | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -        | 0                                                                                 | -                              | -      | 0                                                                                   | -    |
| Grade, %                   | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -        | 0                                                                                 | -                              | -      | 0                                                                                   | -    |
| Peak Hour Factor           | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87       | 87                                                                                | 87                             | 87     | 87                                                                                  | 87   |
| Heavy Vehicles, %          | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0                                                                                 | 0        | 0                                                                                 | 0                              | 0      | 0                                                                                   | 0    |
| Mvmt Flow                  | 110                                                                               | 1437                                                                              | 47                                                                                | 31                                                                                | 744                                                                               | 3                                                                                 | 28       | 8                                                                                 | 129                            | 6      | 2                                                                                   | 75   |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |          |                                                                                   |                                |        |                                                                                     |      |
| Major/Minor                | Major1                                                                            |                                                                                   |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   | Minor1   |                                                                                   |                                | Minor2 |                                                                                     |      |
| Conflicting Flow All       | 747                                                                               | 0                                                                                 | 0                                                                                 | 1484                                                                              | 0                                                                                 | 0                                                                                 | 2092     | 2466                                                                              | 719                            | 1751   | 2512                                                                                | 374  |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 1657     | 1657                                                                              | -                              | 808    | 808                                                                                 | -    |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 435      | 809                                                                               | -                              | 943    | 1704                                                                                | -    |
| Critical Hdwy              | 4.12                                                                              | -                                                                                 | -                                                                                 | 4.1                                                                               | -                                                                                 | -                                                                                 | 7.5      | 6.5                                                                               | 6.9                            | 7.5    | 6.5                                                                                 | 6.9  |
| Critical Hdwy Stg 1        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 6.5      | 5.5                                                                               | -                              | 6.5    | 5.5                                                                                 | -    |
| Critical Hdwy Stg 2        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 6.5      | 5.5                                                                               | -                              | 6.5    | 5.5                                                                                 | -    |
| Follow-up Hdwy             | 2.21                                                                              | -                                                                                 | -                                                                                 | 2.2                                                                               | -                                                                                 | -                                                                                 | 3.5      | 4                                                                                 | 3.3                            | 3.5    | 4                                                                                   | 3.3  |
| Pot Cap-1 Maneuver         | 864                                                                               | -                                                                                 | -                                                                                 | 459                                                                               | -                                                                                 | -                                                                                 | 31       | 31                                                                                | 375                            | 56     | 29                                                                                  | 629  |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 104      | 157                                                                               | -                              | 345    | 397                                                                                 | -    |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 575      | 396                                                                               | -                              | 286    | 149                                                                                 | -    |
| Platoon blocked, %         |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 | -                                                                                 |          |                                                                                   |                                |        |                                                                                     |      |
| Mov Cap-1 Maneuver         | 864                                                                               | -                                                                                 | -                                                                                 | 459                                                                               | -                                                                                 | -                                                                                 | ~ 22     | 25                                                                                | 375                            | 24     | 24                                                                                  | 629  |
| Mov Cap-2 Maneuver         | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | ~ 22     | 25                                                                                | -                              | 24     | 24                                                                                  | -    |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 91       | 137                                                                               | -                              | 301    | 370                                                                                 | -    |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 470      | 369                                                                               | -                              | 154    | 130                                                                                 | -    |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |          |                                                                                   |                                |        |                                                                                     |      |
| Approach                   | EB                                                                                |                                                                                   |                                                                                   | WB                                                                                |                                                                                   |                                                                                   | NB       |                                                                                   |                                | SB     |                                                                                     |      |
| HCM Control Delay, s       | 0.7                                                                               |                                                                                   |                                                                                   | 0.5                                                                               |                                                                                   |                                                                                   | \$ 531.3 |                                                                                   |                                | 40.3   |                                                                                     |      |
| HCM LOS                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | F        |                                                                                   |                                | E      |                                                                                     |      |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |          |                                                                                   |                                |        |                                                                                     |      |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR      | SBLn1                                                                             |                                |        |                                                                                     |      |
| Capacity (veh/h)           | 86                                                                                | 864                                                                               | -                                                                                 | -                                                                                 | 459                                                                               | -                                                                                 | -        | 182                                                                               |                                |        |                                                                                     |      |
| HCM Lane V/C Ratio         | 1.911                                                                             | 0.128                                                                             | -                                                                                 | -                                                                                 | 0.068                                                                             | -                                                                                 | -        | 0.455                                                                             |                                |        |                                                                                     |      |
| HCM Control Delay (s)      | \$ 531.3                                                                          | 9.8                                                                               | -                                                                                 | -                                                                                 | 13.4                                                                              | -                                                                                 | -        | 40.3                                                                              |                                |        |                                                                                     |      |
| HCM Lane LOS               | F                                                                                 | A                                                                                 | -                                                                                 | -                                                                                 | B                                                                                 | -                                                                                 | -        | E                                                                                 |                                |        |                                                                                     |      |
| HCM 95th %tile Q(veh)      | 14.2                                                                              | 0.4                                                                               | -                                                                                 | -                                                                                 | 0.2                                                                               | -                                                                                 | -        | 2.1                                                                               |                                |        |                                                                                     |      |
| Notes                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |          |                                                                                   |                                |        |                                                                                     |      |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s                                                            |                                                                                   |                                                                                   | +: Computation Not Defined                                                        |                                                                                   |          |                                                                                   | *: All major volume in platoon |        |                                                                                     |      |

| Intersection               |            |                        |        |                            |            |                                |
|----------------------------|------------|------------------------|--------|----------------------------|------------|--------------------------------|
| Int Delay, s/veh           | 3143.4     |                        |        |                            |            |                                |
| Movement                   | EBT        | EBR                    | WBL    | WBT                        | NBL        | NBR                            |
| Lane Configurations        | ↑↑         |                        |        | ↑↑                         | ↑↑         |                                |
| Traffic Vol, veh/h         | 1113       | 288                    | 253    | 501                        | 176        | 154                            |
| Future Vol, veh/h          | 1113       | 288                    | 253    | 501                        | 176        | 154                            |
| Conflicting Peds, #/hr     | 0          | 0                      | 0      | 0                          | 0          | 0                              |
| Sign Control               | Free       | Free                   | Free   | Free                       | Stop       | Stop                           |
| RT Channelized             | -          | None                   | -      | None                       | -          | None                           |
| Storage Length             | -          | -                      | -      | -                          | 0          | -                              |
| Veh in Median Storage, #   | 0          | -                      | -      | 0                          | 0          | -                              |
| Grade, %                   | 0          | -                      | -      | 0                          | 0          | -                              |
| Peak Hour Factor           | 92         | 92                     | 92     | 92                         | 92         | 92                             |
| Heavy Vehicles, %          | 2          | 2                      | 2      | 2                          | 2          | 2                              |
| Mvmt Flow                  | 1210       | 313                    | 275    | 545                        | 191        | 167                            |
|                            |            |                        |        |                            |            |                                |
| Major/Minor                | Major1     |                        | Major2 |                            | Minor1     |                                |
| Conflicting Flow All       | 0          | 0                      | 1523   | 0                          | 2190       | 762                            |
| Stage 1                    | -          | -                      | -      | -                          | 1367       | -                              |
| Stage 2                    | -          | -                      | -      | -                          | 823        | -                              |
| Critical Hdwy              | -          | -                      | 4.14   | -                          | 6.84       | 6.94                           |
| Critical Hdwy Stg 1        | -          | -                      | -      | -                          | 5.84       | -                              |
| Critical Hdwy Stg 2        | -          | -                      | -      | -                          | 5.84       | -                              |
| Follow-up Hdwy             | -          | -                      | 2.22   | -                          | 3.52       | 3.32                           |
| Pot Cap-1 Maneuver         | -          | -                      | 434    | -                          | ~ 39       | 347                            |
| Stage 1                    | -          | -                      | -      | -                          | 202        | -                              |
| Stage 2                    | -          | -                      | -      | -                          | 392        | -                              |
| Platoon blocked, %         | -          | -                      |        | -                          |            |                                |
| Mov Cap-1 Maneuver         | -          | -                      | 434    | -                          | ~ 4        | 347                            |
| Mov Cap-2 Maneuver         | -          | -                      | -      | -                          | ~ 4        | -                              |
| Stage 1                    | -          | -                      | -      | -                          | 202        | -                              |
| Stage 2                    | -          | -                      | -      | -                          | ~ 36       | -                              |
|                            |            |                        |        |                            |            |                                |
|                            |            |                        |        |                            |            |                                |
| Approach                   | EB         |                        | WB     |                            | NB         |                                |
| HCM Control Delay, s       | 0          |                        | 12.9   |                            | \$ 23641.2 |                                |
| HCM LOS                    |            |                        |        |                            | F          |                                |
|                            |            |                        |        |                            |            |                                |
|                            |            |                        |        |                            |            |                                |
| Minor Lane/Major Mvmt      | NBLn1      | EBT                    | EBR    | WBL                        | WBT        |                                |
| Capacity (veh/h)           | 7          | -                      | -      | 434                        | -          |                                |
| HCM Lane V/C Ratio         | 51.242     | -                      | -      | 0.634                      | -          |                                |
| HCM Control Delay (s)      | \$ 23641.2 | -                      | -      | 26.6                       | 6          |                                |
| HCM Lane LOS               | F          | -                      | -      | D                          | A          |                                |
| HCM 95th %tile Q(veh)      | 46.8       | -                      | -      | 4.3                        | -          |                                |
| Notes                      |            |                        |        |                            |            |                                |
| ~: Volume exceeds capacity |            | \$: Delay exceeds 300s |        | +: Computation Not Defined |            | *: All major volume in platoon |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.4  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑↑   |      |
| Traffic Vol, veh/h       | 879  | 12   | 1    | 1137 | 17   | 4    |
| Future Vol, veh/h        | 879  | 12   | 1    | 1137 | 17   | 4    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 7    | 11   | 0    | 2    | 0    | 33   |
| Mvmt Flow                | 955  | 13   | 1    | 1236 | 18   | 4    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |      |
|----------------------|--------|--------|--------|---|------|------|
| Conflicting Flow All | 0      | 0      | 968    | 0 | 1582 | 484  |
| Stage 1              | -      | -      | -      | - | 962  | -    |
| Stage 2              | -      | -      | -      | - | 620  | -    |
| Critical Hdwy        | -      | -      | 4.1    | - | 6.8  | 7.56 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.8  | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.8  | -    |
| Follow-up Hdwy       | -      | -      | 2.2    | - | 3.5  | 3.63 |
| Pot Cap-1 Maneuver   | -      | -      | 720    | - | 101  | 454  |
| Stage 1              | -      | -      | -      | - | 336  | -    |
| Stage 2              | -      | -      | -      | - | 504  | -    |
| Platoon blocked, %   | -      | -      | -      | - | -    | -    |
| Mov Cap-1 Maneuver   | -      | -      | 720    | - | 101  | 454  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 101  | -    |
| Stage 1              | -      | -      | -      | - | 336  | -    |
| Stage 2              | -      | -      | -      | - | 502  | -    |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 42.3 |
| HCM LOS              |    |    | E    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 119   | -   | -   | 720   | -   |
| HCM Lane V/C Ratio    | 0.192 | -   | -   | 0.002 | -   |
| HCM Control Delay (s) | 42.3  | -   | -   | 10    | 0   |
| HCM Lane LOS          | E     | -   | -   | B     | A   |
| HCM 95th %tile Q(veh) | 0.7   | -   | -   | 0     | -   |

| Intersection               |          |                        |      |                            |      |                                |
|----------------------------|----------|------------------------|------|----------------------------|------|--------------------------------|
| Int Delay, s/veh           | 63.6     |                        |      |                            |      |                                |
| Movement                   | EBT      | EBR                    | WBL  | WBT                        | NBL  | NBR                            |
| Lane Configurations        | ↑↑       | ↗                      | ↘    | ↑↑                         | ↘↗   |                                |
| Traffic Vol, veh/h         | 623      | 90                     | 109  | 1277                       | 105  | 89                             |
| Future Vol, veh/h          | 623      | 90                     | 109  | 1277                       | 105  | 89                             |
| Conflicting Peds, #/hr     | 0        | 0                      | 0    | 0                          | 0    | 0                              |
| Sign Control               | Free     | Free                   | Free | Free                       | Stop | Stop                           |
| RT Channelized             | -        | None                   | -    | None                       | -    | None                           |
| Storage Length             | -        | 200                    | 150  | -                          | 0    | -                              |
| Veh in Median Storage, #   | 0        | -                      | -    | 0                          | 0    | -                              |
| Grade, %                   | 0        | -                      | -    | 0                          | 0    | -                              |
| Peak Hour Factor           | 83       | 83                     | 83   | 83                         | 83   | 83                             |
| Heavy Vehicles, %          | 4        | 3                      | 3    | 2                          | 9    | 10                             |
| Mvmt Flow                  | 751      | 108                    | 131  | 1539                       | 127  | 107                            |
|                            |          |                        |      |                            |      |                                |
| Major/Minor                | Major1   | Major2                 |      | Minor1                     |      |                                |
| Conflicting Flow All       | 0        | 0                      | 859  | 0                          | 1783 | 376                            |
| Stage 1                    | -        | -                      | -    | -                          | 751  | -                              |
| Stage 2                    | -        | -                      | -    | -                          | 1032 | -                              |
| Critical Hdwy              | -        | -                      | 4.16 | -                          | 6.98 | 7.1                            |
| Critical Hdwy Stg 1        | -        | -                      | -    | -                          | 5.98 | -                              |
| Critical Hdwy Stg 2        | -        | -                      | -    | -                          | 5.98 | -                              |
| Follow-up Hdwy             | -        | -                      | 2.23 | -                          | 3.59 | 3.4                            |
| Pot Cap-1 Maneuver         | -        | -                      | 772  | -                          | ~ 68 | 599                            |
| Stage 1                    | -        | -                      | -    | -                          | 409  | -                              |
| Stage 2                    | -        | -                      | -    | -                          | 289  | -                              |
| Platoon blocked, %         | -        | -                      |      | -                          |      |                                |
| Mov Cap-1 Maneuver         | -        | -                      | 772  | -                          | ~ 56 | 599                            |
| Mov Cap-2 Maneuver         | -        | -                      | -    | -                          | ~ 56 | -                              |
| Stage 1                    | -        | -                      | -    | -                          | 409  | -                              |
| Stage 2                    | -        | -                      | -    | -                          | 240  | -                              |
|                            |          |                        |      |                            |      |                                |
| Approach                   | EB       | WB                     |      | NB                         |      |                                |
| HCM Control Delay, s       | 0        | 0.8                    |      | \$ 746.5                   |      |                                |
| HCM LOS                    | F        |                        |      |                            |      |                                |
|                            |          |                        |      |                            |      |                                |
| Minor Lane/Major Mvmt      | NBLn1    | EBT                    | EBR  | WBL                        | WBT  |                                |
| Capacity (veh/h)           | 96       | -                      | -    | 772                        | -    |                                |
| HCM Lane V/C Ratio         | 2.435    | -                      | -    | 0.17                       | -    |                                |
| HCM Control Delay (s)      | \$ 746.5 | -                      | -    | 10.6                       | -    |                                |
| HCM Lane LOS               | F        | -                      | -    | B                          | -    |                                |
| HCM 95th %tile Q(veh)      | 21.3     | -                      | -    | 0.6                        | -    |                                |
| Notes                      |          |                        |      |                            |      |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |      | +: Computation Not Defined |      | *: All major volume in platoon |



| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 9.7                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL    | NBT                                                                               | NBR  | SBL    | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |      |        |  |      |        |  |  |
| Traffic Vol, veh/h       | 38                                                                                | 657                                                                               | 4                                                                                 | 36                                                                                | 1337                                                                              | 8    | 4      | 0                                                                                 | 40   | 16     | 1                                                                                 | 125                                                                               |
| Future Vol, veh/h        | 38                                                                                | 657                                                                               | 4                                                                                 | 36                                                                                | 1337                                                                              | 8    | 4      | 0                                                                                 | 40   | 16     | 1                                                                                 | 125                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0      | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop   | Stop                                                                              | Stop | Stop   | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -      | -                                                                                 | None | -      | -                                                                                 | None                                                                              |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -      | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90   | 90     | 90                                                                                | 90   | 90     | 90                                                                                | 90                                                                                |
| Heavy Vehicles, %        | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0    | 0      | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                | 42                                                                                | 730                                                                               | 4                                                                                 | 40                                                                                | 1486                                                                              | 9    | 4      | 0                                                                                 | 44   | 18     | 1                                                                                 | 139                                                                               |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                   |                                                                                   |
| Major/Minor              | Major1                                                                            |                                                                                   |                                                                                   | Major2                                                                            |                                                                                   |      | Minor1 |                                                                                   |      | Minor2 |                                                                                   |                                                                                   |
| Conflicting Flow All     | 1495                                                                              | 0                                                                                 | 0                                                                                 | 734                                                                               | 0                                                                                 | 0    | 1638   | 2389                                                                              | 365  | 2020   | 2389                                                                              | 748                                                                               |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 814    | 814                                                                               | -    | 1571   | 1571                                                                              | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 824    | 1575                                                                              | -    | 449    | 818                                                                               | -                                                                                 |
| Critical Hdwy            | 4.1                                                                               | -                                                                                 | -                                                                                 | 4.2                                                                               | -                                                                                 | -    | 7.5    | 6.5                                                                               | 6.9  | 7.5    | 6.5                                                                               | 6.9                                                                               |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.5    | 5.5                                                                               | -    | 6.5    | 5.5                                                                               | -                                                                                 |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.5    | 5.5                                                                               | -    | 6.5    | 5.5                                                                               | -                                                                                 |
| Follow-up Hdwy           | 2.2                                                                               | -                                                                                 | -                                                                                 | 2.25                                                                              | -                                                                                 | -    | 3.5    | 4                                                                                 | 3.3  | 3.5    | 4                                                                                 | 3.3                                                                               |
| Pot Cap-1 Maneuver       | 455                                                                               | -                                                                                 | -                                                                                 | 847                                                                               | -                                                                                 | -    | 68     | 34                                                                                | 638  | 35     | 34                                                                                | 359                                                                               |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 342    | 394                                                                               | -    | 118    | 173                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 338    | 172                                                                               | -    | 564    | 393                                                                               | -                                                                                 |
| Platoon blocked, %       |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 | -    |        |                                                                                   |      |        |                                                                                   |                                                                                   |
| Mov Cap-1 Maneuver       | 455                                                                               | -                                                                                 | -                                                                                 | 847                                                                               | -                                                                                 | -    | 36     | 29                                                                                | 638  | 29     | 29                                                                                | 359                                                                               |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 36     | 29                                                                                | -    | 29     | 29                                                                                | -                                                                                 |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 311    | 358                                                                               | -    | 107    | 165                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 196    | 164                                                                               | -    | 476    | 357                                                                               | -                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                   |                                                                                   |
| Approach                 | EB                                                                                |                                                                                   |                                                                                   | WB                                                                                |                                                                                   |      | NB     |                                                                                   |      | SB     |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 0.7                                                                               |                                                                                   |                                                                                   | 0.2                                                                               |                                                                                   |      | 22.6   |                                                                                   |      | 142.8  |                                                                                   |                                                                                   |
| HCM LOS                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      | C      |                                                                                   |      | F      |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT  | WBR    | SBLn1                                                                             |      |        |                                                                                   |                                                                                   |
| Capacity (veh/h)         | 253                                                                               | 455                                                                               | -                                                                                 | -                                                                                 | 847                                                                               | -    | -      | 152                                                                               |      |        |                                                                                   |                                                                                   |
| HCM Lane V/C Ratio       | 0.193                                                                             | 0.093                                                                             | -                                                                                 | -                                                                                 | 0.047                                                                             | -    | -      | 1.038                                                                             |      |        |                                                                                   |                                                                                   |
| HCM Control Delay (s)    | 22.6                                                                              | 13.7                                                                              | -                                                                                 | -                                                                                 | 9.5                                                                               | -    | -      | 142.8                                                                             |      |        |                                                                                   |                                                                                   |
| HCM Lane LOS             | C                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 | A                                                                                 | -    | -      | F                                                                                 |      |        |                                                                                   |                                                                                   |
| HCM 95th %tile Q(veh)    | 0.7                                                                               | 0.3                                                                               | -                                                                                 | -                                                                                 | 0.1                                                                               | -    | -      | 8.1                                                                               |      |        |                                                                                   |                                                                                   |

| Intersection               |           |                        |        |                            |           |                                |
|----------------------------|-----------|------------------------|--------|----------------------------|-----------|--------------------------------|
| Int Delay, s/veh           | 623.7     |                        |        |                            |           |                                |
| Movement                   | EBT       | EBR                    | WBL    | WBT                        | NBL       | NBR                            |
| Lane Configurations        | ↑↑        |                        |        | ↑↑                         | ↑↑        |                                |
| Traffic Vol, veh/h         | 601       | 111                    | 98     | 1156                       | 329       | 290                            |
| Future Vol, veh/h          | 601       | 111                    | 98     | 1156                       | 329       | 290                            |
| Conflicting Peds, #/hr     | 0         | 0                      | 0      | 0                          | 0         | 0                              |
| Sign Control               | Free      | Free                   | Free   | Free                       | Stop      | Stop                           |
| RT Channelized             | -         | None                   | -      | None                       | -         | None                           |
| Storage Length             | -         | -                      | -      | -                          | 0         | -                              |
| Veh in Median Storage, #   | 0         | -                      | -      | 0                          | 0         | -                              |
| Grade, %                   | 0         | -                      | -      | 0                          | 0         | -                              |
| Peak Hour Factor           | 92        | 92                     | 92     | 92                         | 92        | 92                             |
| Heavy Vehicles, %          | 2         | 2                      | 2      | 2                          | 2         | 2                              |
| Mvmt Flow                  | 653       | 121                    | 107    | 1257                       | 358       | 315                            |
|                            |           |                        |        |                            |           |                                |
| Major/Minor                | Major1    |                        | Major2 |                            | Minor1    |                                |
| Conflicting Flow All       | 0         | 0                      | 774    | 0                          | 1557      | 387                            |
| Stage 1                    | -         | -                      | -      | -                          | 714       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 843       | -                              |
| Critical Hdwy              | -         | -                      | 4.14   | -                          | 6.84      | 6.94                           |
| Critical Hdwy Stg 1        | -         | -                      | -      | -                          | 5.84      | -                              |
| Critical Hdwy Stg 2        | -         | -                      | -      | -                          | 5.84      | -                              |
| Follow-up Hdwy             | -         | -                      | 2.22   | -                          | 3.52      | 3.32                           |
| Pot Cap-1 Maneuver         | -         | -                      | 837    | -                          | ~ 103     | 611                            |
| Stage 1                    | -         | -                      | -      | -                          | 446       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 382       | -                              |
| Platoon blocked, %         | -         | -                      |        | -                          |           |                                |
| Mov Cap-1 Maneuver         | -         | -                      | 837    | -                          | ~ 59      | 611                            |
| Mov Cap-2 Maneuver         | -         | -                      | -      | -                          | ~ 59      | -                              |
| Stage 1                    | -         | -                      | -      | -                          | 446       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | ~ 220     | -                              |
|                            |           |                        |        |                            |           |                                |
|                            |           |                        |        |                            |           |                                |
| Approach                   | EB        |                        | WB     |                            | NB        |                                |
| HCM Control Delay, s       | 0         |                        | 2.4    |                            | \$ 2599.6 |                                |
| HCM LOS                    | F         |                        |        |                            |           |                                |
|                            |           |                        |        |                            |           |                                |
|                            |           |                        |        |                            |           |                                |
| Minor Lane/Major Mvmt      | NBLn1     | EBT                    | EBR    | WBL                        | WBT       |                                |
| Capacity (veh/h)           | 102       | -                      | -      | 837                        | -         |                                |
| HCM Lane V/C Ratio         | 6.596     | -                      | -      | 0.127                      | -         |                                |
| HCM Control Delay (s)      | \$ 2599.6 | -                      | -      | 9.9                        | 1.8       |                                |
| HCM Lane LOS               | F         | -                      | -      | A                          | A         |                                |
| HCM 95th %tile Q(veh)      | 74.7      | -                      | -      | 0.4                        | -         |                                |
| Notes                      |           |                        |        |                            |           |                                |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |        | +: Computation Not Defined |           | *: All major volume in platoon |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.5  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑↑   |      |
| Traffic Vol, veh/h       | 1375 | 17   | 0    | 851  | 10   | 0    |
| Future Vol, veh/h        | 1375 | 17   | 0    | 851  | 10   | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 90   | 90   | 90   | 90   | 90   | 90   |
| Heavy Vehicles, %        | 1    | 8    | 2    | 1    | 14   | 2    |
| Mvmt Flow                | 1528 | 19   | 0    | 946  | 11   | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1547   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.14   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.22   |
| Pot Cap-1 Maneuver   | -      | -      | 425    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 425    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB    |
|----------------------|----|----|-------|
| HCM Control Delay, s | 0  | 0  | 112.5 |
| HCM LOS              |    |    | F     |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 44    | -   | -   | 425 | -   |
| HCM Lane V/C Ratio    | 0.253 | -   | -   | -   | -   |
| HCM Control Delay (s) | 112.5 | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.8   | -   | -   | 0   | -   |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 11.2   |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     | ↑    | ↑      | ↑↑    | ↑      |      |
| Traffic Vol, veh/h       | 1488   | 30   | 41     | 719   | 36     | 76   |
| Future Vol, veh/h        | 1488   | 30   | 41     | 719   | 36     | 76   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1617   | 33   | 45     | 782   | 39     | 83   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1650   | 0     | 2098   | 809  |
| Stage 1                  | -      | -    | -      | -     | 1617   | -    |
| Stage 2                  | -      | -    | -      | -     | 481    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 6.9  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 397    | -     | 46     | 328  |
| Stage 1                  | -      | -    | -      | -     | 151    | -    |
| Stage 2                  | -      | -    | -      | -     | 593    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 397    | -     | 41     | 328  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 41     | -    |
| Stage 1                  | -      | -    | -      | -     | 151    | -    |
| Stage 2                  | -      | -    | -      | -     | 526    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.8    |       | 233.4  |      |
| HCM LOS                  |        |      |        |       | F      |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 101    | -    | -      | 397   | -      |      |
| HCM Lane V/C Ratio       | 1.205  | -    | -      | 0.112 | -      |      |
| HCM Control Delay (s)    | 233.4  | -    | -      | 15.2  | -      |      |
| HCM Lane LOS             | F      | -    | -      | C     | -      |      |
| HCM 95th %tile Q(veh)    | 8.2    | -    | -      | 0.4   | -      |      |

| Intersection               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |           |                                                                                   |                                |        |                                                                                     |      |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------|-----------------------------------------------------------------------------------|--------------------------------|--------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh           | 75.3                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |           |                                                                                   |                                |        |                                                                                     |      |
| Movement                   | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL       | NBT                                                                               | NBR                            | SBL    | SBT                                                                                 | SBR  |
| Lane Configurations        |  |  |  |  |  |      |           |  |                                |        |  |      |
| Traffic Vol, veh/h         | 103                                                                               | 1390                                                                              | 44                                                                                | 30                                                                                | 721                                                                               | 3    | 26        | 7                                                                                 | 122                            | 5      | 2                                                                                   | 70   |
| Future Vol, veh/h          | 103                                                                               | 1390                                                                              | 44                                                                                | 30                                                                                | 721                                                                               | 3    | 26        | 7                                                                                 | 122                            | 5      | 2                                                                                   | 70   |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0         | 0                                                                                 | 0                              | 0      | 0                                                                                   | 0    |
| Sign Control               | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop      | Stop                                                                              | Stop                           | Stop   | Stop                                                                                | Stop |
| RT Channelized             | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -         | -                                                                                 | None                           | -      | -                                                                                   | None |
| Storage Length             | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -         | -                                                                                 | -                              | -      | -                                                                                   | -    |
| Veh in Median Storage, #   | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -         | 0                                                                                 | -                              | -      | 0                                                                                   | -    |
| Grade, %                   | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -         | 0                                                                                 | -                              | -      | 0                                                                                   | -    |
| Peak Hour Factor           | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87   | 87        | 87                                                                                | 87                             | 87     | 87                                                                                  | 87   |
| Heavy Vehicles, %          | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0    | 0         | 0                                                                                 | 0                              | 0      | 0                                                                                   | 0    |
| Mvmt Flow                  | 118                                                                               | 1598                                                                              | 51                                                                                | 34                                                                                | 829                                                                               | 3    | 30        | 8                                                                                 | 140                            | 6      | 2                                                                                   | 80   |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |           |                                                                                   |                                |        |                                                                                     |      |
| Major/Minor                | Major1                                                                            |                                                                                   |                                                                                   | Major2                                                                            |                                                                                   |      | Minor1    |                                                                                   |                                | Minor2 |                                                                                     |      |
| Conflicting Flow All       | 832                                                                               | 0                                                                                 | 0                                                                                 | 1649                                                                              | 0                                                                                 | 0    | 2318      | 2734                                                                              | 799                            | 1938   | 2784                                                                                | 416  |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 1834      | 1834                                                                              | -                              | 899    | 899                                                                                 | -    |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 484       | 900                                                                               | -                              | 1039   | 1885                                                                                | -    |
| Critical Hdwy              | 4.12                                                                              | -                                                                                 | -                                                                                 | 4.1                                                                               | -                                                                                 | -    | 7.5       | 6.5                                                                               | 6.9                            | 7.5    | 6.5                                                                                 | 6.9  |
| Critical Hdwy Stg 1        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.5       | 5.5                                                                               | -                              | 6.5    | 5.5                                                                                 | -    |
| Critical Hdwy Stg 2        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.5       | 5.5                                                                               | -                              | 6.5    | 5.5                                                                                 | -    |
| Follow-up Hdwy             | 2.21                                                                              | -                                                                                 | -                                                                                 | 2.2                                                                               | -                                                                                 | -    | 3.5       | 4                                                                                 | 3.3                            | 3.5    | 4                                                                                   | 3.3  |
| Pot Cap-1 Maneuver         | 803                                                                               | -                                                                                 | -                                                                                 | 397                                                                               | -                                                                                 | -    | ~ 21      | 21                                                                                | 333                            | 40     | 19                                                                                  | 591  |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 80        | 128                                                                               | -                              | 304    | 360                                                                                 | -    |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 538       | 360                                                                               | -                              | 250    | 121                                                                                 | -    |
| Platoon blocked, %         |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 | -    |           |                                                                                   |                                |        |                                                                                     |      |
| Mov Cap-1 Maneuver         | 803                                                                               | -                                                                                 | -                                                                                 | 397                                                                               | -                                                                                 | -    | ~ 13      | 16                                                                                | 333                            | 12     | 15                                                                                  | 591  |
| Mov Cap-2 Maneuver         | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | ~ 13      | 16                                                                                | -                              | 12     | 15                                                                                  | -    |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 68        | 109                                                                               | -                              | 259    | 329                                                                                 | -    |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 422       | 329                                                                               | -                              | 114    | 103                                                                                 | -    |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |           |                                                                                   |                                |        |                                                                                     |      |
| Approach                   | EB                                                                                |                                                                                   |                                                                                   | WB                                                                                |                                                                                   |      | NB        |                                                                                   |                                | SB     |                                                                                     |      |
| HCM Control Delay, s       | 0.7                                                                               |                                                                                   |                                                                                   | 0.6                                                                               |                                                                                   |      | \$ 1165.3 |                                                                                   |                                | 100.8  |                                                                                     |      |
| HCM LOS                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      | F         |                                                                                   |                                | F      |                                                                                     |      |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |           |                                                                                   |                                |        |                                                                                     |      |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT  | WBR       | SBLn1                                                                             |                                |        |                                                                                     |      |
| Capacity (veh/h)           | 55                                                                                | 803                                                                               | -                                                                                 | -                                                                                 | 397                                                                               | -    | -         | 115                                                                               |                                |        |                                                                                     |      |
| HCM Lane V/C Ratio         | 3.239                                                                             | 0.147                                                                             | -                                                                                 | -                                                                                 | 0.087                                                                             | -    | -         | 0.77                                                                              |                                |        |                                                                                     |      |
| HCM Control Delay (s)      | \$ 1165.3                                                                         | 10.3                                                                              | -                                                                                 | -                                                                                 | 14.9                                                                              | -    | -         | 100.8                                                                             |                                |        |                                                                                     |      |
| HCM Lane LOS               | F                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 | B                                                                                 | -    | -         | F                                                                                 |                                |        |                                                                                     |      |
| HCM 95th %tile Q(veh)      | 18.9                                                                              | 0.5                                                                               | -                                                                                 | -                                                                                 | 0.3                                                                               | -    | -         | 4.3                                                                               |                                |        |                                                                                     |      |
| Notes                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |           |                                                                                   |                                |        |                                                                                     |      |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s                                                            |                                                                                   |                                                                                   | +: Computation Not Defined                                                        |      |           |                                                                                   | *: All major volume in platoon |        |                                                                                     |      |



| Intersection               |        |                        |        |                            |        |                                |
|----------------------------|--------|------------------------|--------|----------------------------|--------|--------------------------------|
| Int Delay, s/veh           | 47.8   |                        |        |                            |        |                                |
| Movement                   | EBT    | EBR                    | WBL    | WBT                        | NBL    | NBR                            |
| Lane Configurations        | ↑↑     |                        |        | ↑↑                         | ↑↑     |                                |
| Traffic Vol, veh/h         | 1201   | 363                    | 320    | 541                        | 218    | 192                            |
| Future Vol, veh/h          | 1201   | 363                    | 320    | 541                        | 218    | 192                            |
| Conflicting Peds, #/hr     | 0      | 0                      | 0      | 0                          | 0      | 0                              |
| Sign Control               | Free   | Free                   | Free   | Free                       | Stop   | Stop                           |
| RT Channelized             | -      | None                   | -      | None                       | -      | None                           |
| Storage Length             | -      | -                      | -      | -                          | 0      | -                              |
| Veh in Median Storage, #   | 0      | -                      | -      | 0                          | 0      | -                              |
| Grade, %                   | 0      | -                      | -      | 0                          | 0      | -                              |
| Peak Hour Factor           | 92     | 92                     | 92     | 92                         | 92     | 92                             |
| Heavy Vehicles, %          | 2      | 2                      | 2      | 2                          | 2      | 2                              |
| Mvmt Flow                  | 1305   | 395                    | 348    | 588                        | 237    | 209                            |
|                            |        |                        |        |                            |        |                                |
| Major/Minor                | Major1 |                        | Major2 |                            | Minor1 |                                |
| Conflicting Flow All       | 0      | 0                      | 1700   | 0                          | 2493   | 850                            |
| Stage 1                    | -      | -                      | -      | -                          | 1503   | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 990    | -                              |
| Critical Hdwy              | -      | -                      | 4.14   | -                          | 6.84   | 6.94                           |
| Critical Hdwy Stg 1        | -      | -                      | -      | -                          | 5.84   | -                              |
| Critical Hdwy Stg 2        | -      | -                      | -      | -                          | 5.84   | -                              |
| Follow-up Hdwy             | -      | -                      | 2.22   | -                          | 3.52   | 3.32                           |
| Pot Cap-1 Maneuver         | -      | -                      | 371    | -                          | ~ 24   | 304                            |
| Stage 1                    | -      | -                      | -      | -                          | ~ 170  | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 320    | -                              |
| Platoon blocked, %         | -      | -                      |        | -                          |        |                                |
| Mov Cap-1 Maneuver         | -      | -                      | 371    | -                          | 0      | 304                            |
| Mov Cap-2 Maneuver         | -      | -                      | -      | -                          | 0      | -                              |
| Stage 1                    | -      | -                      | -      | -                          | ~ 170  | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 0      | -                              |
|                            |        |                        |        |                            |        |                                |
| Approach                   | EB     |                        | WB     |                            | NB     |                                |
| HCM Control Delay, s       | 0      |                        | 34.1   |                            | 258.8  |                                |
| HCM LOS                    |        |                        |        |                            | F      |                                |
|                            |        |                        |        |                            |        |                                |
| Minor Lane/Major Mvmt      | NBLn1  | EBT                    | EBR    | WBL                        | WBT    |                                |
| Capacity (veh/h)           | 304    | -                      | -      | 371                        | -      |                                |
| HCM Lane V/C Ratio         | 1.466  | -                      | -      | 0.938                      | -      |                                |
| HCM Control Delay (s)      | 258.8  | -                      | -      | 66.2                       | 15.2   |                                |
| HCM Lane LOS               | F      | -                      | -      | F                          | C      |                                |
| HCM 95th %tile Q(veh)      | 24.5   | -                      | -      | 10.1                       | -      |                                |
| Notes                      |        |                        |        |                            |        |                                |
| ~: Volume exceeds capacity |        | \$: Delay exceeds 300s |        | +: Computation Not Defined |        | *: All major volume in platoon |

## APPENDIX M

### CAPACITY ANALYSIS REPORTS, DRIVEWAY #1 IMPROVEMENTS



## **1. TURN LANE IMPROVEMENTS**

## **WITHOUT WIDENING**

| Intersection             |                                                                                   |        |      |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|--------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0.5                                                                               |        |      |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR    | WBL  | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |        |      |  |  |       |
| Traffic Vol, veh/h       | 693                                                                               | 11     | 1    | 958                                                                               | 15                                                                                | 3     |
| Future Vol, veh/h        | 693                                                                               | 11     | 1    | 958                                                                               | 15                                                                                | 3     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0      | 0    | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free   | Free | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None   | -    | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -      | -    | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -      | -    | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -      | -    | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92     | 92   | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 7                                                                                 | 11     | 0    | 2                                                                                 | 0                                                                                 | 33    |
| Mvmt Flow                | 753                                                                               | 12     | 1    | 1041                                                                              | 16                                                                                | 3     |
|                          |                                                                                   |        |      |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            | Major2 |      | Minor1                                                                            |                                                                                   |       |
| Conflicting Flow All     | 0                                                                                 | 0      | 765  | 0                                                                                 | 1802                                                                              | 759   |
| Stage 1                  | -                                                                                 | -      | -    | -                                                                                 | 759                                                                               | -     |
| Stage 2                  | -                                                                                 | -      | -    | -                                                                                 | 1043                                                                              | -     |
| Critical Hdwy            | -                                                                                 | -      | 4.1  | -                                                                                 | 6.4                                                                               | 6.53  |
| Critical Hdwy Stg 1      | -                                                                                 | -      | -    | -                                                                                 | 5.4                                                                               | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -      | -    | -                                                                                 | 5.4                                                                               | -     |
| Follow-up Hdwy           | -                                                                                 | -      | 2.2  | -                                                                                 | 3.5                                                                               | 3.597 |
| Pot Cap-1 Maneuver       | -                                                                                 | -      | 857  | -                                                                                 | 89                                                                                | 360   |
| Stage 1                  | -                                                                                 | -      | -    | -                                                                                 | 466                                                                               | -     |
| Stage 2                  | -                                                                                 | -      | -    | -                                                                                 | 342                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -      |      | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -      | 857  | -                                                                                 | 89                                                                                | 360   |
| Mov Cap-2 Maneuver       | -                                                                                 | -      | -    | -                                                                                 | 89                                                                                | -     |
| Stage 1                  | -                                                                                 | -      | -    | -                                                                                 | 466                                                                               | -     |
| Stage 2                  | -                                                                                 | -      | -    | -                                                                                 | 341                                                                               | -     |
|                          |                                                                                   |        |      |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |      |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                | WB     |      | NB                                                                                |                                                                                   |       |
| HCM Control Delay, s     | 0                                                                                 | 0      |      | 48.5                                                                              |                                                                                   |       |
| HCM LOS                  | E                                                                                 |        |      |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |      |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |      |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT    | EBR  | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 102                                                                               | -      | -    | 857                                                                               | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.192                                                                             | -      | -    | 0.001                                                                             | -                                                                                 |       |
| HCM Control Delay (s)    | 48.5                                                                              | -      | -    | 9.2                                                                               | 0                                                                                 |       |
| HCM Lane LOS             | E                                                                                 | -      | -    | A                                                                                 | A                                                                                 |       |
| HCM 95th %tile Q(veh)    | 0.7                                                                               | -      | -    | 0                                                                                 | -                                                                                 |       |



| Intersection               |        |                        |        |                            |        |                                |
|----------------------------|--------|------------------------|--------|----------------------------|--------|--------------------------------|
| Int Delay, s/veh           | 61.8   |                        |        |                            |        |                                |
| Movement                   | EBT    | EBR                    | WBL    | WBT                        | NBL    | NBR                            |
| Lane Configurations        | ↑      | ↗                      | ↖      | ↑                          | ↘      |                                |
| Traffic Vol, veh/h         | 516    | 77                     | 82     | 1039                       | 90     | 72                             |
| Future Vol, veh/h          | 516    | 77                     | 82     | 1039                       | 90     | 72                             |
| Conflicting Peds, #/hr     | 0      | 0                      | 0      | 0                          | 0      | 0                              |
| Sign Control               | Free   | Free                   | Free   | Free                       | Stop   | Stop                           |
| RT Channelized             | -      | None                   | -      | None                       | -      | None                           |
| Storage Length             | -      | 200                    | 150    | -                          | 0      | -                              |
| Veh in Median Storage, #   | 0      | -                      | -      | 0                          | 0      | -                              |
| Grade, %                   | 0      | -                      | -      | 0                          | 0      | -                              |
| Peak Hour Factor           | 83     | 83                     | 83     | 83                         | 83     | 83                             |
| Heavy Vehicles, %          | 4      | 3                      | 3      | 2                          | 9      | 10                             |
| Mvmt Flow                  | 622    | 93                     | 99     | 1252                       | 108    | 87                             |
|                            |        |                        |        |                            |        |                                |
| Major/Minor                | Major1 |                        | Major2 |                            | Minor1 |                                |
| Conflicting Flow All       | 0      | 0                      | 715    | 0                          | 2072   | 622                            |
| Stage 1                    | -      | -                      | -      | -                          | 622    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 1450   | -                              |
| Critical Hdwy              | -      | -                      | 4.13   | -                          | 6.49   | 6.3                            |
| Critical Hdwy Stg 1        | -      | -                      | -      | -                          | 5.49   | -                              |
| Critical Hdwy Stg 2        | -      | -                      | -      | -                          | 5.49   | -                              |
| Follow-up Hdwy             | -      | -                      | 2.227  | -                          | 3.581  | 3.39                           |
| Pot Cap-1 Maneuver         | -      | -                      | 881    | -                          | ~ 57   | 472                            |
| Stage 1                    | -      | -                      | -      | -                          | 522    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 208    | -                              |
| Platoon blocked, %         | -      | -                      | -      | -                          | -      | -                              |
| Mov Cap-1 Maneuver         | -      | -                      | 881    | -                          | ~ 51   | 472                            |
| Mov Cap-2 Maneuver         | -      | -                      | -      | -                          | ~ 51   | -                              |
| Stage 1                    | -      | -                      | -      | -                          | 522    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 185    | -                              |
|                            |        |                        |        |                            |        |                                |
| Approach                   | EB     |                        | WB     |                            | NB     |                                |
| HCM Control Delay, s       | 0      |                        | 0.7    |                            | \$ 711 |                                |
| HCM LOS                    |        |                        |        |                            | F      |                                |
|                            |        |                        |        |                            |        |                                |
| Minor Lane/Major Mvmt      | NBLn1  | EBT                    | EBR    | WBL                        | WBT    |                                |
| Capacity (veh/h)           | 84     | -                      | -      | 881                        | -      |                                |
| HCM Lane V/C Ratio         | 2.324  | -                      | -      | 0.112                      | -      |                                |
| HCM Control Delay (s)      | \$ 711 | -                      | -      | 9.6                        | -      |                                |
| HCM Lane LOS               | F      | -                      | -      | A                          | -      |                                |
| HCM 95th %tile Q(veh)      | 18     | -                      | -      | 0.4                        | -      |                                |
| Notes                      |        |                        |        |                            |        |                                |
| ~: Volume exceeds capacity |        | \$: Delay exceeds 300s |        | +: Computation Not Defined |        | *: All major volume in platoon |

| Intersection               |          |                        |        |                            |          |                                |     |
|----------------------------|----------|------------------------|--------|----------------------------|----------|--------------------------------|-----|
| Int Delay, s/veh           | 82.2     |                        |        |                            |          |                                |     |
| Movement                   | EBT      | EBR                    | WBL    | WBT                        | NBL      | NBR                            |     |
| Lane Configurations        | ↑        | ↗                      | ↖      | ↑                          | ↖        | ↗                              |     |
| Traffic Vol, veh/h         | 518      | 70                     | 62     | 911                        | 210      | 185                            |     |
| Future Vol, veh/h          | 518      | 70                     | 62     | 911                        | 210      | 185                            |     |
| Conflicting Peds, #/hr     | 0        | 0                      | 0      | 0                          | 0        | 0                              |     |
| Sign Control               | Free     | Free                   | Free   | Free                       | Stop     | Stop                           |     |
| RT Channelized             | -        | Free                   | -      | None                       | -        | Yield                          |     |
| Storage Length             | -        | 100                    | 50     | -                          | 0        | 300                            |     |
| Veh in Median Storage, #   | 0        | -                      | -      | 0                          | 0        | -                              |     |
| Grade, %                   | 0        | -                      | -      | 0                          | 0        | -                              |     |
| Peak Hour Factor           | 92       | 92                     | 92     | 92                         | 92       | 92                             |     |
| Heavy Vehicles, %          | 2        | 2                      | 2      | 2                          | 2        | 2                              |     |
| Mvmt Flow                  | 563      | 76                     | 67     | 990                        | 228      | 201                            |     |
|                            |          |                        |        |                            |          |                                |     |
| Major/Minor                | Major1   |                        | Major2 |                            | Minor1   |                                |     |
| Conflicting Flow All       | 0        | -                      | 563    | 0                          | 1687     | 563                            |     |
| Stage 1                    | -        | -                      | -      | -                          | 563      | -                              |     |
| Stage 2                    | -        | -                      | -      | -                          | 1124     | -                              |     |
| Critical Hdwy              | -        | -                      | 4.12   | -                          | 6.42     | 6.22                           |     |
| Critical Hdwy Stg 1        | -        | -                      | -      | -                          | 5.42     | -                              |     |
| Critical Hdwy Stg 2        | -        | -                      | -      | -                          | 5.42     | -                              |     |
| Follow-up Hdwy             | -        | -                      | 2.218  | -                          | 3.518    | 3.318                          |     |
| Pot Cap-1 Maneuver         | -        | 0                      | 1008   | -                          | ~ 103    | 526                            |     |
| Stage 1                    | -        | 0                      | -      | -                          | 570      | -                              |     |
| Stage 2                    | -        | 0                      | -      | -                          | 310      | -                              |     |
| Platoon blocked, %         | -        |                        |        | -                          |          |                                |     |
| Mov Cap-1 Maneuver         | -        | -                      | 1008   | -                          | ~ 96     | 526                            |     |
| Mov Cap-2 Maneuver         | -        | -                      | -      | -                          | ~ 96     | -                              |     |
| Stage 1                    | -        | -                      | -      | -                          | 570      | -                              |     |
| Stage 2                    | -        | -                      | -      | -                          | 290      | -                              |     |
|                            |          |                        |        |                            |          |                                |     |
|                            |          |                        |        |                            |          |                                |     |
| Approach                   | EB       |                        | WB     |                            | NB       |                                |     |
| HCM Control Delay, s       | 0        |                        | 0.6    |                            | \$ 391.1 |                                |     |
| HCM LOS                    | F        |                        |        |                            |          |                                |     |
|                            |          |                        |        |                            |          |                                |     |
|                            |          |                        |        |                            |          |                                |     |
| Minor Lane/Major Mvmt      | NBLn1    |                        | NBLn2  |                            | EBT      | WBL                            | WBT |
| Capacity (veh/h)           | 96       |                        | 526    |                            | -        | 1008                           | -   |
| HCM Lane V/C Ratio         | 2.378    |                        | 0.382  |                            | -        | 0.067                          | -   |
| HCM Control Delay (s)      | \$ 721.6 |                        | 16     |                            | -        | 8.8                            | -   |
| HCM Lane LOS               | F        |                        | C      |                            | -        | A                              | -   |
| HCM 95th %tile Q(veh)      | 20.7     |                        | 1.8    |                            | -        | 0.2                            | -   |
| Notes                      |          |                        |        |                            |          |                                |     |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |        | +: Computation Not Defined |          | *: All major volume in platoon |     |

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0.3                                                                               |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 1144                                                                              | 15   | 0      | 666                                                                               | 8                                                                                 | 0     |
| Future Vol, veh/h        | 1144                                                                              | 15   | 0      | 666                                                                               | 8                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 90                                                                                | 90   | 90     | 90                                                                                | 90                                                                                | 90    |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2      | 1                                                                                 | 14                                                                                | 2     |
| Mvmt Flow                | 1271                                                                              | 17   | 0      | 740                                                                               | 9                                                                                 | 0     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 1288   | 0                                                                                 | 2020                                                                              | 1280  |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1280                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 740                                                                               | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.54                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.54                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.54                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.626                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 538    | -                                                                                 | 59                                                                                | 202   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 246                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 451                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 538    | -                                                                                 | 59                                                                                | 202   |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 59                                                                                | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 246                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 451                                                                               | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 76.6                                                                              |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | F                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 59                                                                                | -    | -      | 538                                                                               | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.151                                                                             | -    | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 76.6                                                                              | -    | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | F                                                                                 | -    | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | 0.5                                                                               | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 5.4    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑      | ↗    | ↖      | ↑     | ↘↗     |      |
| Traffic Vol, veh/h       | 1219   | 25   | 27     | 580   | 31     | 52   |
| Future Vol, veh/h        | 1219   | 25   | 27     | 580   | 31     | 52   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1325   | 27   | 29     | 630   | 34     | 57   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1352   | 0     | 2013   | 1325 |
| Stage 1                  | -      | -    | -      | -     | 1325   | -    |
| Stage 2                  | -      | -    | -      | -     | 688    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.4    | 6.2  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.4    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.4    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 516    | -     | 65     | 192  |
| Stage 1                  | -      | -    | -      | -     | 251    | -    |
| Stage 2                  | -      | -    | -      | -     | 503    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 516    | -     | 61     | 192  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 61     | -    |
| Stage 1                  | -      | -    | -      | -     | 251    | -    |
| Stage 2                  | -      | -    | -      | -     | 475    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.6    |       | 121.7  |      |
| HCM LOS                  | F      |      |        |       |        |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 107    | -    | -      | 516   | -      |      |
| HCM Lane V/C Ratio       | 0.843  | -    | -      | 0.057 | -      |      |
| HCM Control Delay (s)    | 121.7  | -    | -      | 12.4  | -      |      |
| HCM Lane LOS             | F      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 4.9    | -    | -      | 0.2   | -      |      |

HCM 6th TWSC  
4: Driveway #1 & Old Cornelia Highway

2025 - Turn Lane Improvements  
PM Peak Hour

| Intersection               |           |                        |       |                            |       |                                |
|----------------------------|-----------|------------------------|-------|----------------------------|-------|--------------------------------|
| Int Delay, s/veh           | 120.4     |                        |       |                            |       |                                |
| Movement                   | EBT       | EBR                    | WBL   | WBT                        | NBL   | NBR                            |
| Lane Configurations        | ↑         | ↗                      | ↘     | ↑                          | ↘     | ↗                              |
| Traffic Vol, veh/h         | 1035      | 236                    | 208   | 466                        | 141   | 124                            |
| Future Vol, veh/h          | 1035      | 236                    | 208   | 466                        | 141   | 124                            |
| Conflicting Peds, #/hr     | 0         | 0                      | 0     | 0                          | 0     | 0                              |
| Sign Control               | Free      | Free                   | Free  | Free                       | Stop  | Stop                           |
| RT Channelized             | -         | Free                   | -     | None                       | -     | Yield                          |
| Storage Length             | -         | 100                    | 50    | -                          | 0     | 300                            |
| Veh in Median Storage, #   | 0         | -                      | -     | 0                          | 0     | -                              |
| Grade, %                   | 0         | -                      | -     | 0                          | 0     | -                              |
| Peak Hour Factor           | 92        | 92                     | 92    | 92                         | 92    | 92                             |
| Heavy Vehicles, %          | 2         | 2                      | 2     | 2                          | 2     | 2                              |
| Mvmt Flow                  | 1125      | 257                    | 226   | 507                        | 153   | 135                            |
|                            |           |                        |       |                            |       |                                |
| Major/Minor                | Major1    | Major2                 |       | Minor1                     |       |                                |
| Conflicting Flow All       | 0         | -                      | 1125  | 0                          | 2084  | 1125                           |
| Stage 1                    | -         | -                      | -     | -                          | 1125  | -                              |
| Stage 2                    | -         | -                      | -     | -                          | 959   | -                              |
| Critical Hdwy              | -         | -                      | 4.12  | -                          | 6.42  | 6.22                           |
| Critical Hdwy Stg 1        | -         | -                      | -     | -                          | 5.42  | -                              |
| Critical Hdwy Stg 2        | -         | -                      | -     | -                          | 5.42  | -                              |
| Follow-up Hdwy             | -         | -                      | 2.218 | -                          | 3.518 | 3.318                          |
| Pot Cap-1 Maneuver         | -         | 0                      | 621   | -                          | ~ 58  | 250                            |
| Stage 1                    | -         | 0                      | -     | -                          | 310   | -                              |
| Stage 2                    | -         | 0                      | -     | -                          | 372   | -                              |
| Platoon blocked, %         | -         |                        |       | -                          |       |                                |
| Mov Cap-1 Maneuver         | -         | -                      | 621   | -                          | ~ 37  | 250                            |
| Mov Cap-2 Maneuver         | -         | -                      | -     | -                          | ~ 37  | -                              |
| Stage 1                    | -         | -                      | -     | -                          | 310   | -                              |
| Stage 2                    | -         | -                      | -     | -                          | 237   | -                              |
|                            |           |                        |       |                            |       |                                |
|                            |           |                        |       |                            |       |                                |
| Approach                   | EB        | WB                     |       | NB                         |       |                                |
| HCM Control Delay, s       | 0         | 4.3                    |       | \$ 886.2                   |       |                                |
| HCM LOS                    | F         |                        |       |                            |       |                                |
|                            |           |                        |       |                            |       |                                |
|                            |           |                        |       |                            |       |                                |
| Minor Lane/Major Mvmt      | NBLn1     | NBLn2                  | EBT   | WBL                        | WBT   |                                |
| Capacity (veh/h)           | 37        | 250                    | -     | 621                        | -     |                                |
| HCM Lane V/C Ratio         | 4.142     | 0.539                  | -     | 0.364                      | -     |                                |
| HCM Control Delay (s)      | \$ 1634.6 | 35.1                   | -     | 14.1                       | -     |                                |
| HCM Lane LOS               | F         | E                      | -     | B                          | -     |                                |
| HCM 95th %tile Q(veh)      | 17.8      | 2.9                    | -     | 1.7                        | -     |                                |
| Notes                      |           |                        |       |                            |       |                                |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |       | +: Computation Not Defined |       | *: All major volume in platoon |



| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0.7                                                                               |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 779                                                                               | 11   | 1      | 1043                                                                              | 16                                                                                | 3     |
| Future Vol, veh/h        | 779                                                                               | 11   | 1      | 1043                                                                              | 16                                                                                | 3     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 7                                                                                 | 11   | 0      | 2                                                                                 | 0                                                                                 | 33    |
| Mvmt Flow                | 847                                                                               | 12   | 1      | 1134                                                                              | 17                                                                                | 3     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 859    | 0                                                                                 | 1989                                                                              | 853   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 853                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1136                                                                              | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.1    | -                                                                                 | 6.4                                                                               | 6.53  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.4                                                                               | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.4                                                                               | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.2    | -                                                                                 | 3.5                                                                               | 3.597 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 791    | -                                                                                 | 68                                                                                | 317   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 421                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 309                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 791    | -                                                                                 | 68                                                                                | 317   |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 68                                                                                | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 421                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 308                                                                               | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 67                                                                                |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | F                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 78                                                                                | -    | -      | 791                                                                               | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.265                                                                             | -    | -      | 0.001                                                                             | -                                                                                 |       |
| HCM Control Delay (s)    | 67                                                                                | -    | -      | 9.6                                                                               | 0                                                                                 |       |
| HCM Lane LOS             | F                                                                                 | -    | -      | A                                                                                 | A                                                                                 |       |
| HCM 95th %tile Q(veh)    | 1                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection               |           |                        |        |                            |           |                                |
|----------------------------|-----------|------------------------|--------|----------------------------|-----------|--------------------------------|
| Int Delay, s/veh           | 111       |                        |        |                            |           |                                |
| Movement                   | EBT       | EBR                    | WBL    | WBT                        | NBL       | NBR                            |
| Lane Configurations        | ↑         | ↗                      | ↖      | ↑                          | ↘         |                                |
| Traffic Vol, veh/h         | 567       | 83                     | 94     | 1150                       | 97        | 80                             |
| Future Vol, veh/h          | 567       | 83                     | 94     | 1150                       | 97        | 80                             |
| Conflicting Peds, #/hr     | 0         | 0                      | 0      | 0                          | 0         | 0                              |
| Sign Control               | Free      | Free                   | Free   | Free                       | Stop      | Stop                           |
| RT Channelized             | -         | None                   | -      | None                       | -         | None                           |
| Storage Length             | -         | 200                    | 150    | -                          | 0         | -                              |
| Veh in Median Storage, #   | 0         | -                      | -      | 0                          | 0         | -                              |
| Grade, %                   | 0         | -                      | -      | 0                          | 0         | -                              |
| Peak Hour Factor           | 83        | 83                     | 83     | 83                         | 83        | 83                             |
| Heavy Vehicles, %          | 4         | 3                      | 3      | 2                          | 9         | 10                             |
| Mvmt Flow                  | 683       | 100                    | 113    | 1386                       | 117       | 96                             |
|                            |           |                        |        |                            |           |                                |
| Major/Minor                | Major1    |                        | Major2 |                            | Minor1    |                                |
| Conflicting Flow All       | 0         | 0                      | 783    | 0                          | 2295      | 683                            |
| Stage 1                    | -         | -                      | -      | -                          | 683       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 1612      | -                              |
| Critical Hdwy              | -         | -                      | 4.13   | -                          | 6.49      | 6.3                            |
| Critical Hdwy Stg 1        | -         | -                      | -      | -                          | 5.49      | -                              |
| Critical Hdwy Stg 2        | -         | -                      | -      | -                          | 5.49      | -                              |
| Follow-up Hdwy             | -         | -                      | 2.227  | -                          | 3.581     | 3.39                           |
| Pot Cap-1 Maneuver         | -         | -                      | 831    | -                          | ~ 41      | 436                            |
| Stage 1                    | -         | -                      | -      | -                          | 489       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 173       | -                              |
| Platoon blocked, %         | -         | -                      |        | -                          |           |                                |
| Mov Cap-1 Maneuver         | -         | -                      | 831    | -                          | ~ 35      | 436                            |
| Mov Cap-2 Maneuver         | -         | -                      | -      | -                          | ~ 35      | -                              |
| Stage 1                    | -         | -                      | -      | -                          | 489       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 149       | -                              |
|                            |           |                        |        |                            |           |                                |
| Approach                   | EB        |                        | WB     |                            | NB        |                                |
| HCM Control Delay, s       | 0         |                        | 0.8    |                            | \$ 1292.6 |                                |
| HCM LOS                    | F         |                        |        |                            |           |                                |
|                            |           |                        |        |                            |           |                                |
| Minor Lane/Major Mvmt      | NBLn1     | EBT                    | EBR    | WBL                        | WBT       |                                |
| Capacity (veh/h)           | 60        | -                      | -      | 831                        | -         |                                |
| HCM Lane V/C Ratio         | 3.554     | -                      | -      | 0.136                      | -         |                                |
| HCM Control Delay (s)      | \$ 1292.6 | -                      | -      | 10                         | -         |                                |
| HCM Lane LOS               | F         | -                      | -      | B                          | -         |                                |
| HCM 95th %tile Q(veh)      | 22.7      | -                      | -      | 0.5                        | -         |                                |
| Notes                      |           |                        |        |                            |           |                                |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |        | +: Computation Not Defined |           | *: All major volume in platoon |

HCM 6th TWSC  
4: Driveway #1 & Old Cornelia Highway

2030 - Turn Lane Improvements  
AM Peak Hour

| Intersection               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh           | 174.1                                                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                   | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations        |  |  |  |  |  |  |
| Traffic Vol, veh/h         | 557                                                                               | 90                                                                                | 80                                                                                | 979                                                                               | 265                                                                               | 233                                                                               |
| Future Vol, veh/h          | 557                                                                               | 90                                                                                | 80                                                                                | 979                                                                               | 265                                                                               | 233                                                                               |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control               | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop                                                                              | Stop                                                                              |
| RT Channelized             | -                                                                                 | Free                                                                              | -                                                                                 | None                                                                              | -                                                                                 | Yield                                                                             |
| Storage Length             | -                                                                                 | 100                                                                               | 50                                                                                | -                                                                                 | 0                                                                                 | 300                                                                               |
| Veh in Median Storage, #   | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                   | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor           | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                |
| Heavy Vehicles, %          | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                  | 605                                                                               | 98                                                                                | 87                                                                                | 1064                                                                              | 288                                                                               | 253                                                                               |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor                | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   | Minor1                                                                            |                                                                                   |
| Conflicting Flow All       | 0                                                                                 | -                                                                                 | 605                                                                               | 0                                                                                 | 1843                                                                              | 605                                                                               |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 605                                                                               | -                                                                                 |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 1238                                                                              | -                                                                                 |
| Critical Hdwy              | -                                                                                 | -                                                                                 | 4.12                                                                              | -                                                                                 | 6.42                                                                              | 6.22                                                                              |
| Critical Hdwy Stg 1        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 5.42                                                                              | -                                                                                 |
| Critical Hdwy Stg 2        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 5.42                                                                              | -                                                                                 |
| Follow-up Hdwy             | -                                                                                 | -                                                                                 | 2.218                                                                             | -                                                                                 | 3.518                                                                             | 3.318                                                                             |
| Pot Cap-1 Maneuver         | -                                                                                 | 0                                                                                 | 973                                                                               | -                                                                                 | ~ 83                                                                              | 498                                                                               |
| Stage 1                    | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 545                                                                               | -                                                                                 |
| Stage 2                    | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | ~ 274                                                                             | -                                                                                 |
| Platoon blocked, %         | -                                                                                 |                                                                                   |                                                                                   | -                                                                                 |                                                                                   |                                                                                   |
| Mov Cap-1 Maneuver         | -                                                                                 | -                                                                                 | 973                                                                               | -                                                                                 | ~ 76                                                                              | 498                                                                               |
| Mov Cap-2 Maneuver         | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | ~ 76                                                                              | -                                                                                 |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 545                                                                               | -                                                                                 |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | ~ 250                                                                             | -                                                                                 |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                   | EB                                                                                |                                                                                   | WB                                                                                |                                                                                   | NB                                                                                |                                                                                   |
| HCM Control Delay, s       | 0                                                                                 |                                                                                   | 0.7                                                                               |                                                                                   | \$ 737.7                                                                          |                                                                                   |
| HCM LOS                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   | F                                                                                 |                                                                                   |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt      | NBLn1                                                                             |                                                                                   | NBLn2                                                                             | EBT                                                                               | WBL                                                                               | WBT                                                                               |
| Capacity (veh/h)           | 76                                                                                |                                                                                   | 498                                                                               | -                                                                                 | 973                                                                               | -                                                                                 |
| HCM Lane V/C Ratio         | 3.79                                                                              |                                                                                   | 0.509                                                                             | -                                                                                 | 0.089                                                                             | -                                                                                 |
| HCM Control Delay (s)      | \$ 1369.2                                                                         |                                                                                   | 19.5                                                                              | -                                                                                 | 9.1                                                                               | -                                                                                 |
| HCM Lane LOS               | F                                                                                 |                                                                                   | C                                                                                 | -                                                                                 | A                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)      | 30.1                                                                              |                                                                                   | 2.8                                                                               | -                                                                                 | 0.3                                                                               | -                                                                                 |
| Notes                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s                                                            |                                                                                   | +: Computation Not Defined                                                        |                                                                                   | *: All major volume in platoon                                                    |

HCM 6th TWSC  
4: Driveway #1 & Old Cornelia Highway

2030 - Turn Lane Improvements  
PM Peak Hour

| Intersection               |           |                        |        |                            |           |                                |     |
|----------------------------|-----------|------------------------|--------|----------------------------|-----------|--------------------------------|-----|
| Int Delay, s/veh           | 311       |                        |        |                            |           |                                |     |
| Movement                   | EBT       | EBR                    | WBL    | WBT                        | NBL       | NBR                            |     |
| Lane Configurations        | ↑         | ↗                      | ↖      | ↑                          | ↖         | ↗                              |     |
| Traffic Vol, veh/h         | 1113      | 288                    | 253    | 501                        | 176       | 154                            |     |
| Future Vol, veh/h          | 1113      | 288                    | 253    | 501                        | 176       | 154                            |     |
| Conflicting Peds, #/hr     | 0         | 0                      | 0      | 0                          | 0         | 0                              |     |
| Sign Control               | Free      | Free                   | Free   | Free                       | Stop      | Stop                           |     |
| RT Channelized             | -         | Free                   | -      | None                       | -         | Yield                          |     |
| Storage Length             | -         | 100                    | 50     | -                          | 0         | 300                            |     |
| Veh in Median Storage, #   | 0         | -                      | -      | 0                          | 0         | -                              |     |
| Grade, %                   | 0         | -                      | -      | 0                          | 0         | -                              |     |
| Peak Hour Factor           | 92        | 92                     | 92     | 92                         | 92        | 92                             |     |
| Heavy Vehicles, %          | 2         | 2                      | 2      | 2                          | 2         | 2                              |     |
| Mvmt Flow                  | 1210      | 313                    | 275    | 545                        | 191       | 167                            |     |
|                            |           |                        |        |                            |           |                                |     |
| Major/Minor                | Major1    |                        | Major2 |                            | Minor1    |                                |     |
| Conflicting Flow All       | 0         | -                      | 1210   | 0                          | 2305      | 1210                           |     |
| Stage 1                    | -         | -                      | -      | -                          | 1210      | -                              |     |
| Stage 2                    | -         | -                      | -      | -                          | 1095      | -                              |     |
| Critical Hdwy              | -         | -                      | 4.12   | -                          | 6.42      | 6.22                           |     |
| Critical Hdwy Stg 1        | -         | -                      | -      | -                          | 5.42      | -                              |     |
| Critical Hdwy Stg 2        | -         | -                      | -      | -                          | 5.42      | -                              |     |
| Follow-up Hdwy             | -         | -                      | 2.218  | -                          | 3.518     | 3.318                          |     |
| Pot Cap-1 Maneuver         | -         | 0                      | 577    | -                          | ~ 42      | 223                            |     |
| Stage 1                    | -         | 0                      | -      | -                          | 282       | -                              |     |
| Stage 2                    | -         | 0                      | -      | -                          | 321       | -                              |     |
| Platoon blocked, %         | -         |                        |        | -                          |           |                                |     |
| Mov Cap-1 Maneuver         | -         | -                      | 577    | -                          | ~ 22      | 223                            |     |
| Mov Cap-2 Maneuver         | -         | -                      | -      | -                          | ~ 22      | -                              |     |
| Stage 1                    | -         | -                      | -      | -                          | 282       | -                              |     |
| Stage 2                    | -         | -                      | -      | -                          | ~ 168     | -                              |     |
|                            |           |                        |        |                            |           |                                |     |
| Approach                   | EB        |                        | WB     |                            | NB        |                                |     |
| HCM Control Delay, s       | 0         |                        | 5.6    |                            | \$ 2057.7 |                                |     |
| HCM LOS                    |           |                        |        |                            | F         |                                |     |
|                            |           |                        |        |                            |           |                                |     |
| Minor Lane/Major Mvmt      | NBLn1     |                        | NBLn2  |                            | EBT       | WBL                            | WBT |
| Capacity (veh/h)           | 22        |                        | 223    |                            | -         | 577                            | -   |
| HCM Lane V/C Ratio         | 8.696     |                        | 0.751  |                            | -         | 0.477                          | -   |
| HCM Control Delay (s)      | \$ 3807.6 |                        | 57.8   |                            | -         | 16.8                           | -   |
| HCM Lane LOS               | F         |                        | F      |                            | -         | C                              | -   |
| HCM 95th %tile Q(veh)      | 24.1      |                        | 5.2    |                            | -         | 2.6                            | -   |
| Notes                      |           |                        |        |                            |           |                                |     |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |        | +: Computation Not Defined |           | *: All major volume in platoon |     |

| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.5                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 1251                                                                              | 16   | 0    | 745                                                                               | 9                                                                                 | 0    |
| Future Vol, veh/h        | 1251                                                                              | 16   | 0    | 745                                                                               | 9                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                | 90   |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2    | 1                                                                                 | 14                                                                                | 2    |
| Mvmt Flow                | 1390                                                                              | 18   | 0    | 828                                                                               | 10                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1408   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 485    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 485    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB    |
|----------------------|----|----|-------|
| HCM Control Delay, s | 0  | 0  | 109.4 |
| HCM LOS              |    |    | F     |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 44    | -   | -   | 485 | -   |
| HCM Lane V/C Ratio    | 0.227 | -   | -   | -   | -   |
| HCM Control Delay (s) | 109.4 | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.8   | -   | -   | 0   | -   |



| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 11.9   |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑      | ↗    | ↘      | ↑     | ↘      |      |
| Traffic Vol, veh/h       | 1339   | 27   | 33     | 644   | 33     | 62   |
| Future Vol, veh/h        | 1339   | 27   | 33     | 644   | 33     | 62   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1455   | 29   | 36     | 700   | 36     | 67   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1484   | 0     | 2227   | 1455 |
| Stage 1                  | -      | -    | -      | -     | 1455   | -    |
| Stage 2                  | -      | -    | -      | -     | 772    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.4    | 6.2  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.4    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.4    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 459    | -     | 48     | 161  |
| Stage 1                  | -      | -    | -      | -     | 217    | -    |
| Stage 2                  | -      | -    | -      | -     | 459    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 459    | -     | 44     | 161  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 44     | -    |
| Stage 1                  | -      | -    | -      | -     | 217    | -    |
| Stage 2                  | -      | -    | -      | -     | 423    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.7    |       | 261.8  |      |
| HCM LOS                  | F      |      |        |       |        |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 84     | -    | -      | 459   | -      |      |
| HCM Lane V/C Ratio       | 1.229  | -    | -      | 0.078 | -      |      |
| HCM Control Delay (s)    | 261.8  | -    | -      | 13.5  | -      |      |
| HCM Lane LOS             | F      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 7.5    | -    | -      | 0.3   | -      |      |

HCM 6th TWSC  
4: Driveway #1 & Old Cornelia Highway

2030 - Turn Lane Improvements  
PM Peak Hour

| Intersection               |           |                        |        |                            |           |                                |     |
|----------------------------|-----------|------------------------|--------|----------------------------|-----------|--------------------------------|-----|
| Int Delay, s/veh           | 311       |                        |        |                            |           |                                |     |
| Movement                   | EBT       | EBR                    | WBL    | WBT                        | NBL       | NBR                            |     |
| Lane Configurations        | ↑         | ↗                      | ↖      | ↑                          | ↖         | ↗                              |     |
| Traffic Vol, veh/h         | 1113      | 288                    | 253    | 501                        | 176       | 154                            |     |
| Future Vol, veh/h          | 1113      | 288                    | 253    | 501                        | 176       | 154                            |     |
| Conflicting Peds, #/hr     | 0         | 0                      | 0      | 0                          | 0         | 0                              |     |
| Sign Control               | Free      | Free                   | Free   | Free                       | Stop      | Stop                           |     |
| RT Channelized             | -         | Free                   | -      | None                       | -         | Yield                          |     |
| Storage Length             | -         | 100                    | 50     | -                          | 0         | 300                            |     |
| Veh in Median Storage, #   | 0         | -                      | -      | 0                          | 0         | -                              |     |
| Grade, %                   | 0         | -                      | -      | 0                          | 0         | -                              |     |
| Peak Hour Factor           | 92        | 92                     | 92     | 92                         | 92        | 92                             |     |
| Heavy Vehicles, %          | 2         | 2                      | 2      | 2                          | 2         | 2                              |     |
| Mvmt Flow                  | 1210      | 313                    | 275    | 545                        | 191       | 167                            |     |
|                            |           |                        |        |                            |           |                                |     |
| Major/Minor                | Major1    |                        | Major2 |                            | Minor1    |                                |     |
| Conflicting Flow All       | 0         | -                      | 1210   | 0                          | 2305      | 1210                           |     |
| Stage 1                    | -         | -                      | -      | -                          | 1210      | -                              |     |
| Stage 2                    | -         | -                      | -      | -                          | 1095      | -                              |     |
| Critical Hdwy              | -         | -                      | 4.12   | -                          | 6.42      | 6.22                           |     |
| Critical Hdwy Stg 1        | -         | -                      | -      | -                          | 5.42      | -                              |     |
| Critical Hdwy Stg 2        | -         | -                      | -      | -                          | 5.42      | -                              |     |
| Follow-up Hdwy             | -         | -                      | 2.218  | -                          | 3.518     | 3.318                          |     |
| Pot Cap-1 Maneuver         | -         | 0                      | 577    | -                          | ~ 42      | 223                            |     |
| Stage 1                    | -         | 0                      | -      | -                          | 282       | -                              |     |
| Stage 2                    | -         | 0                      | -      | -                          | 321       | -                              |     |
| Platoon blocked, %         | -         |                        |        | -                          |           |                                |     |
| Mov Cap-1 Maneuver         | -         | -                      | 577    | -                          | ~ 22      | 223                            |     |
| Mov Cap-2 Maneuver         | -         | -                      | -      | -                          | ~ 22      | -                              |     |
| Stage 1                    | -         | -                      | -      | -                          | 282       | -                              |     |
| Stage 2                    | -         | -                      | -      | -                          | ~ 168     | -                              |     |
|                            |           |                        |        |                            |           |                                |     |
| Approach                   | EB        |                        | WB     |                            | NB        |                                |     |
| HCM Control Delay, s       | 0         |                        | 5.6    |                            | \$ 2057.7 |                                |     |
| HCM LOS                    |           |                        |        |                            | F         |                                |     |
|                            |           |                        |        |                            |           |                                |     |
| Minor Lane/Major Mvmt      | NBLn1     |                        | NBLn2  |                            | EBT       | WBL                            | WBT |
| Capacity (veh/h)           | 22        |                        | 223    |                            | -         | 577                            | -   |
| HCM Lane V/C Ratio         | 8.696     |                        | 0.751  |                            | -         | 0.477                          | -   |
| HCM Control Delay (s)      | \$ 3807.6 |                        | 57.8   |                            | -         | 16.8                           | -   |
| HCM Lane LOS               | F         |                        | F      |                            | -         | C                              | -   |
| HCM 95th %tile Q(veh)      | 24.1      |                        | 5.2    |                            | -         | 2.6                            | -   |
| Notes                      |           |                        |        |                            |           |                                |     |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |        | +: Computation Not Defined |           | *: All major volume in platoon |     |

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 1                                                                                 |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 879                                                                               | 12   | 1      | 1137                                                                              | 17                                                                                | 4     |
| Future Vol, veh/h        | 879                                                                               | 12   | 1      | 1137                                                                              | 17                                                                                | 4     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 7                                                                                 | 11   | 0      | 2                                                                                 | 0                                                                                 | 33    |
| Mvmt Flow                | 955                                                                               | 13   | 1      | 1236                                                                              | 18                                                                                | 4     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 968    | 0                                                                                 | 2200                                                                              | 962   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 962                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1238                                                                              | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.1    | -                                                                                 | 6.4                                                                               | 6.53  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.4                                                                               | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.4                                                                               | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.2    | -                                                                                 | 3.5                                                                               | 3.597 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 720    | -                                                                                 | 50                                                                                | 272   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 374                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 276                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 720    | -                                                                                 | 50                                                                                | 272   |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 50                                                                                | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 374                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 275                                                                               | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 100.3                                                                             |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | F                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 59                                                                                | -    | -      | 720                                                                               | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.387                                                                             | -    | -      | 0.002                                                                             | -                                                                                 |       |
| HCM Control Delay (s)    | 100.3                                                                             | -    | -      | 10                                                                                | 0                                                                                 |       |
| HCM Lane LOS             | F                                                                                 | -    | -      | B                                                                                 | A                                                                                 |       |
| HCM 95th %tile Q(veh)    | 1.4                                                                               | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection               |           |                        |       |                            |       |                                |
|----------------------------|-----------|------------------------|-------|----------------------------|-------|--------------------------------|
| Int Delay, s/veh           | 195.9     |                        |       |                            |       |                                |
| Movement                   | EBT       | EBR                    | WBL   | WBT                        | NBL   | NBR                            |
| Lane Configurations        | ↑         | ↗                      | ↖     | ↑                          | ↘     |                                |
| Traffic Vol, veh/h         | 623       | 90                     | 109   | 1277                       | 105   | 89                             |
| Future Vol, veh/h          | 623       | 90                     | 109   | 1277                       | 105   | 89                             |
| Conflicting Peds, #/hr     | 0         | 0                      | 0     | 0                          | 0     | 0                              |
| Sign Control               | Free      | Free                   | Free  | Free                       | Stop  | Stop                           |
| RT Channelized             | -         | None                   | -     | None                       | -     | None                           |
| Storage Length             | -         | 200                    | 150   | -                          | 0     | -                              |
| Veh in Median Storage, #   | 0         | -                      | -     | 0                          | 0     | -                              |
| Grade, %                   | 0         | -                      | -     | 0                          | 0     | -                              |
| Peak Hour Factor           | 83        | 83                     | 83    | 83                         | 83    | 83                             |
| Heavy Vehicles, %          | 4         | 3                      | 3     | 2                          | 9     | 10                             |
| Mvmt Flow                  | 751       | 108                    | 131   | 1539                       | 127   | 107                            |
|                            |           |                        |       |                            |       |                                |
| Major/Minor                | Major1    | Major2                 |       | Minor1                     |       |                                |
| Conflicting Flow All       | 0         | 0                      | 859   | 0                          | 2552  | 751                            |
| Stage 1                    | -         | -                      | -     | -                          | 751   | -                              |
| Stage 2                    | -         | -                      | -     | -                          | 1801  | -                              |
| Critical Hdwy              | -         | -                      | 4.13  | -                          | 6.49  | 6.3                            |
| Critical Hdwy Stg 1        | -         | -                      | -     | -                          | 5.49  | -                              |
| Critical Hdwy Stg 2        | -         | -                      | -     | -                          | 5.49  | -                              |
| Follow-up Hdwy             | -         | -                      | 2.227 | -                          | 3.581 | 3.39                           |
| Pot Cap-1 Maneuver         | -         | -                      | 778   | -                          | ~ 28  | 398                            |
| Stage 1                    | -         | -                      | -     | -                          | 454   | -                              |
| Stage 2                    | -         | -                      | -     | -                          | 139   | -                              |
| Platoon blocked, %         | -         | -                      | -     | -                          | -     | -                              |
| Mov Cap-1 Maneuver         | -         | -                      | 778   | -                          | ~ 23  | 398                            |
| Mov Cap-2 Maneuver         | -         | -                      | -     | -                          | ~ 23  | -                              |
| Stage 1                    | -         | -                      | -     | -                          | 454   | -                              |
| Stage 2                    | -         | -                      | -     | -                          | ~ 116 | -                              |
|                            |           |                        |       |                            |       |                                |
|                            |           |                        |       |                            |       |                                |
| Approach                   | EB        | WB                     |       | NB                         |       |                                |
| HCM Control Delay, s       | 0         | 0.8                    |       | \$ 2309.8                  |       |                                |
| HCM LOS                    | F         |                        |       |                            |       |                                |
|                            |           |                        |       |                            |       |                                |
|                            |           |                        |       |                            |       |                                |
| Minor Lane/Major Mvmt      | NBLn1     | EBT                    | EBR   | WBL                        | WBT   |                                |
| Capacity (veh/h)           | 41        | -                      | -     | 778                        | -     |                                |
| HCM Lane V/C Ratio         | 5.701     | -                      | -     | 0.169                      | -     |                                |
| HCM Control Delay (s)      | \$ 2309.8 | -                      | -     | 10.6                       | -     |                                |
| HCM Lane LOS               | F         | -                      | -     | B                          | -     |                                |
| HCM 95th %tile Q(veh)      | 27.3      | -                      | -     | 0.6                        | -     |                                |
| Notes                      |           |                        |       |                            |       |                                |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |       | +: Computation Not Defined |       | *: All major volume in platoon |

HCM 6th TWSC  
4: Driveway #1 & Old Cornelia Highway

2035 - Turn Lane Improvements  
AM Peak Hour

| Intersection               |           |                        |        |                            |           |                                |
|----------------------------|-----------|------------------------|--------|----------------------------|-----------|--------------------------------|
| Int Delay, s/veh           | 401.9     |                        |        |                            |           |                                |
| Movement                   | EBT       | EBR                    | WBL    | WBT                        | NBL       | NBR                            |
| Lane Configurations        | ↑         | ↗                      | ↖      | ↑                          | ↖         | ↗                              |
| Traffic Vol, veh/h         | 601       | 111                    | 98     | 1156                       | 329       | 290                            |
| Future Vol, veh/h          | 601       | 111                    | 98     | 1156                       | 329       | 290                            |
| Conflicting Peds, #/hr     | 0         | 0                      | 0      | 0                          | 0         | 0                              |
| Sign Control               | Free      | Free                   | Free   | Free                       | Stop      | Stop                           |
| RT Channelized             | -         | Free                   | -      | None                       | -         | Yield                          |
| Storage Length             | -         | 100                    | 50     | -                          | 0         | 300                            |
| Veh in Median Storage, #   | 0         | -                      | -      | 0                          | 0         | -                              |
| Grade, %                   | 0         | -                      | -      | 0                          | 0         | -                              |
| Peak Hour Factor           | 92        | 92                     | 92     | 92                         | 92        | 92                             |
| Heavy Vehicles, %          | 2         | 2                      | 2      | 2                          | 2         | 2                              |
| Mvmt Flow                  | 653       | 121                    | 107    | 1257                       | 358       | 315                            |
|                            |           |                        |        |                            |           |                                |
| Major/Minor                | Major1    |                        | Major2 |                            | Minor1    |                                |
| Conflicting Flow All       | 0         | -                      | 653    | 0                          | 2124      | 653                            |
| Stage 1                    | -         | -                      | -      | -                          | 653       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 1471      | -                              |
| Critical Hdwy              | -         | -                      | 4.12   | -                          | 6.42      | 6.22                           |
| Critical Hdwy Stg 1        | -         | -                      | -      | -                          | 5.42      | -                              |
| Critical Hdwy Stg 2        | -         | -                      | -      | -                          | 5.42      | -                              |
| Follow-up Hdwy             | -         | -                      | 2.218  | -                          | 3.518     | 3.318                          |
| Pot Cap-1 Maneuver         | -         | 0                      | 934    | -                          | ~ 55      | 467                            |
| Stage 1                    | -         | 0                      | -      | -                          | 518       | -                              |
| Stage 2                    | -         | 0                      | -      | -                          | ~ 211     | -                              |
| Platoon blocked, %         | -         |                        |        | -                          |           |                                |
| Mov Cap-1 Maneuver         | -         | -                      | 934    | -                          | ~ 49      | 467                            |
| Mov Cap-2 Maneuver         | -         | -                      | -      | -                          | ~ 49      | -                              |
| Stage 1                    | -         | -                      | -      | -                          | 518       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | ~ 187     | -                              |
|                            |           |                        |        |                            |           |                                |
|                            |           |                        |        |                            |           |                                |
| Approach                   | EB        |                        | WB     |                            | NB        |                                |
| HCM Control Delay, s       | 0         |                        | 0.7    |                            | \$ 1604.9 |                                |
| HCM LOS                    |           |                        |        |                            | F         |                                |
|                            |           |                        |        |                            |           |                                |
|                            |           |                        |        |                            |           |                                |
| Minor Lane/Major Mvmt      | NBLn1     |                        | NBLn2  |                            | EBT       | WBL    WBT                     |
| Capacity (veh/h)           | 49        |                        | 467    |                            | -         | 934    -                       |
| HCM Lane V/C Ratio         | 7.298     |                        | 0.675  |                            | -         | 0.114    -                     |
| HCM Control Delay (s)      | \$ 2995.4 |                        | 27.3   |                            | -         | 9.3    -                       |
| HCM Lane LOS               | F         |                        | D      |                            | -         | A    -                         |
| HCM 95th %tile Q(veh)      | 41.8      |                        | 4.9    |                            | -         | 0.4    -                       |
| Notes                      |           |                        |        |                            |           |                                |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |        | +: Computation Not Defined |           | *: All major volume in platoon |



| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.8                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 1375                                                                              | 17   | 0    | 851                                                                               | 10                                                                                | 0    |
| Future Vol, veh/h        | 1375                                                                              | 17   | 0    | 851                                                                               | 10                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                | 90   |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2    | 1                                                                                 | 14                                                                                | 2    |
| Mvmt Flow                | 1528                                                                              | 19   | 0    | 946                                                                               | 11                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1547   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 429    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 429    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB    |
|----------------------|----|----|-------|
| HCM Control Delay, s | 0  | 0  | 183.5 |
| HCM LOS              |    |    | F     |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 30    | -   | -   | 429 | -   |
| HCM Lane V/C Ratio    | 0.37  | -   | -   | -   | -   |
| HCM Control Delay (s) | 183.5 | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 1.2   | -   | -   | 0   | -   |

| Intersection               |          |                        |        |                            |          |                                |
|----------------------------|----------|------------------------|--------|----------------------------|----------|--------------------------------|
| Int Delay, s/veh           | 28.8     |                        |        |                            |          |                                |
| Movement                   | EBT      | EBR                    | WBL    | WBT                        | NBL      | NBR                            |
| Lane Configurations        | ↑        | ↗                      | ↖      | ↑                          | ↘        |                                |
| Traffic Vol, veh/h         | 1488     | 30                     | 41     | 719                        | 36       | 76                             |
| Future Vol, veh/h          | 1488     | 30                     | 41     | 719                        | 36       | 76                             |
| Conflicting Peds, #/hr     | 0        | 0                      | 0      | 0                          | 0        | 0                              |
| Sign Control               | Free     | Free                   | Free   | Free                       | Stop     | Stop                           |
| RT Channelized             | -        | None                   | -      | None                       | -        | None                           |
| Storage Length             | -        | 200                    | 150    | -                          | 0        | -                              |
| Veh in Median Storage, #   | 0        | -                      | -      | 0                          | 0        | -                              |
| Grade, %                   | 0        | -                      | -      | 0                          | 0        | -                              |
| Peak Hour Factor           | 92       | 92                     | 92     | 92                         | 92       | 92                             |
| Heavy Vehicles, %          | 9        | 0                      | 0      | 2                          | 0        | 0                              |
| Mvmt Flow                  | 1617     | 33                     | 45     | 782                        | 39       | 83                             |
|                            |          |                        |        |                            |          |                                |
| Major/Minor                | Major1   |                        | Major2 |                            | Minor1   |                                |
| Conflicting Flow All       | 0        | 0                      | 1650   | 0                          | 2489     | 1617                           |
| Stage 1                    | -        | -                      | -      | -                          | 1617     | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 872      | -                              |
| Critical Hdwy              | -        | -                      | 4.1    | -                          | 6.4      | 6.2                            |
| Critical Hdwy Stg 1        | -        | -                      | -      | -                          | 5.4      | -                              |
| Critical Hdwy Stg 2        | -        | -                      | -      | -                          | 5.4      | -                              |
| Follow-up Hdwy             | -        | -                      | 2.2    | -                          | 3.5      | 3.3                            |
| Pot Cap-1 Maneuver         | -        | -                      | 397    | -                          | ~ 33     | 129                            |
| Stage 1                    | -        | -                      | -      | -                          | 180      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 412      | -                              |
| Platoon blocked, %         | -        | -                      |        | -                          |          |                                |
| Mov Cap-1 Maneuver         | -        | -                      | 397    | -                          | ~ 29     | 129                            |
| Mov Cap-2 Maneuver         | -        | -                      | -      | -                          | ~ 29     | -                              |
| Stage 1                    | -        | -                      | -      | -                          | 180      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 365      | -                              |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Approach                   | EB       |                        | WB     |                            | NB       |                                |
| HCM Control Delay, s       | 0        |                        | 0.8    |                            | \$ 609.3 |                                |
| HCM LOS                    | F        |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Minor Lane/Major Mvmt      | NBLn1    | EBT                    | EBR    | WBL                        | WBT      |                                |
| Capacity (veh/h)           | 61       | -                      | -      | 397                        | -        |                                |
| HCM Lane V/C Ratio         | 1.996    | -                      | -      | 0.112                      | -        |                                |
| HCM Control Delay (s)      | \$ 609.3 | -                      | -      | 15.2                       | -        |                                |
| HCM Lane LOS               | F        | -                      | -      | C                          | -        |                                |
| HCM 95th %tile Q(veh)      | 11.5     | -                      | -      | 0.4                        | -        |                                |
| Notes                      |          |                        |        |                            |          |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |        | +: Computation Not Defined |          | *: All major volume in platoon |

HCM 6th TWSC  
4: Driveway #1 & Old Cornelia Highway

2035 - Turn Lane Improvements  
PM Peak Hour

| Intersection               |          |                        |        |                            |           |                                |
|----------------------------|----------|------------------------|--------|----------------------------|-----------|--------------------------------|
| Int Delay, s/veh           | 978.3    |                        |        |                            |           |                                |
| Movement                   | EBT      | EBR                    | WBL    | WBT                        | NBL       | NBR                            |
| Lane Configurations        | ↑        | ↗                      | ↖      | ↑                          | ↖         | ↗                              |
| Traffic Vol, veh/h         | 1201     | 363                    | 320    | 541                        | 218       | 192                            |
| Future Vol, veh/h          | 1201     | 363                    | 320    | 541                        | 218       | 192                            |
| Conflicting Peds, #/hr     | 0        | 0                      | 0      | 0                          | 0         | 0                              |
| Sign Control               | Free     | Free                   | Free   | Free                       | Stop      | Stop                           |
| RT Channelized             | -        | Free                   | -      | None                       | -         | Yield                          |
| Storage Length             | -        | 100                    | 50     | -                          | 0         | 300                            |
| Veh in Median Storage, #   | 0        | -                      | -      | 0                          | 0         | -                              |
| Grade, %                   | 0        | -                      | -      | 0                          | 0         | -                              |
| Peak Hour Factor           | 92       | 92                     | 92     | 92                         | 92        | 92                             |
| Heavy Vehicles, %          | 2        | 2                      | 2      | 2                          | 2         | 2                              |
| Mvmt Flow                  | 1305     | 395                    | 348    | 588                        | 237       | 209                            |
|                            |          |                        |        |                            |           |                                |
| Major/Minor                | Major1   |                        | Major2 |                            | Minor1    |                                |
| Conflicting Flow All       | 0        | -                      | 1305   | 0                          | 2589      | 1305                           |
| Stage 1                    | -        | -                      | -      | -                          | 1305      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 1284      | -                              |
| Critical Hdwy              | -        | -                      | 4.12   | -                          | 6.42      | 6.22                           |
| Critical Hdwy Stg 1        | -        | -                      | -      | -                          | 5.42      | -                              |
| Critical Hdwy Stg 2        | -        | -                      | -      | -                          | 5.42      | -                              |
| Follow-up Hdwy             | -        | -                      | 2.218  | -                          | 3.518     | 3.318                          |
| Pot Cap-1 Maneuver         | -        | 0                      | 530    | -                          | ~ 28      | ~ 196                          |
| Stage 1                    | -        | 0                      | -      | -                          | 254       | -                              |
| Stage 2                    | -        | 0                      | -      | -                          | 260       | -                              |
| Platoon blocked, %         | -        |                        |        | -                          |           |                                |
| Mov Cap-1 Maneuver         | -        | -                      | 530    | -                          | ~ 10      | ~ 196                          |
| Mov Cap-2 Maneuver         | -        | -                      | -      | -                          | ~ 10      | -                              |
| Stage 1                    | -        | -                      | -      | -                          | 254       | -                              |
| Stage 2                    | -        | -                      | -      | -                          | ~ 89      | -                              |
|                            |          |                        |        |                            |           |                                |
|                            |          |                        |        |                            |           |                                |
| Approach                   | EB       |                        | WB     |                            | NB        |                                |
| HCM Control Delay, s       | 0        |                        | 8.9    |                            | \$ 5879.6 |                                |
| HCM LOS                    |          |                        |        |                            | F         |                                |
|                            |          |                        |        |                            |           |                                |
|                            |          |                        |        |                            |           |                                |
| Minor Lane/Major Mvmt      | NBLn1    | NBLn2                  | EBT    | WBL                        | WBT       |                                |
| Capacity (veh/h)           | 10       | 196                    | -      | 530                        | -         |                                |
| HCM Lane V/C Ratio         | 23.696   | 1.065                  | -      | 0.656                      | -         |                                |
| HCM Control Delay (s)      | \$ 10941 | 132.9                  | -      | 23.8                       | -         |                                |
| HCM Lane LOS               | F        | F                      | -      | C                          | -         |                                |
| HCM 95th %tile Q(veh)      | 31.2     | 9.7                    | -      | 4.7                        | -         |                                |
| Notes                      |          |                        |        |                            |           |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |        | +: Computation Not Defined |           | *: All major volume in platoon |

**WITH WIDENING**

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 0.3    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     |      |        | ↑↑    | ↑↑     |      |
| Traffic Vol, veh/h       | 693    | 11   | 1      | 958   | 15     | 3    |
| Future Vol, veh/h        | 693    | 11   | 1      | 958   | 15     | 3    |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | -    | -      | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 7      | 11   | 0      | 2     | 0      | 33   |
| Mvmt Flow                | 753    | 12   | 1      | 1041  | 16     | 3    |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 765    | 0     | 1282   | 383  |
| Stage 1                  | -      | -    | -      | -     | 759    | -    |
| Stage 2                  | -      | -    | -      | -     | 523    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 7.56 |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.63 |
| Pot Cap-1 Maneuver       | -      | -    | 857    | -     | 160    | 535  |
| Stage 1                  | -      | -    | -      | -     | 428    | -    |
| Stage 2                  | -      | -    | -      | -     | 565    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 857    | -     | 160    | 535  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 160    | -    |
| Stage 1                  | -      | -    | -      | -     | 428    | -    |
| Stage 2                  | -      | -    | -      | -     | 563    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0      |       | 27.3   |      |
| HCM LOS                  |        |      |        |       | D      |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 181    | -    | -      | 857   | -      |      |
| HCM Lane V/C Ratio       | 0.108  | -    | -      | 0.001 | -      |      |
| HCM Control Delay (s)    | 27.3   | -    | -      | 9.2   | 0      |      |
| HCM Lane LOS             | D      | -    | -      | A     | A      |      |
| HCM 95th %tile Q(veh)    | 0.4    | -    | -      | 0     | -      |      |



| Intersection               |        |                        |        |                            |        |                                |
|----------------------------|--------|------------------------|--------|----------------------------|--------|--------------------------------|
| Int Delay, s/veh           | 16.8   |                        |        |                            |        |                                |
| Movement                   | EBT    | EBR                    | WBL    | WBT                        | NBL    | NBR                            |
| Lane Configurations        | ↑↑     | ↗                      | ↖      | ↑↑                         | ↘      |                                |
| Traffic Vol, veh/h         | 516    | 77                     | 82     | 1039                       | 90     | 72                             |
| Future Vol, veh/h          | 516    | 77                     | 82     | 1039                       | 90     | 72                             |
| Conflicting Peds, #/hr     | 0      | 0                      | 0      | 0                          | 0      | 0                              |
| Sign Control               | Free   | Free                   | Free   | Free                       | Stop   | Stop                           |
| RT Channelized             | -      | None                   | -      | None                       | -      | None                           |
| Storage Length             | -      | 200                    | 150    | -                          | 0      | -                              |
| Veh in Median Storage, #   | 0      | -                      | -      | 0                          | 0      | -                              |
| Grade, %                   | 0      | -                      | -      | 0                          | 0      | -                              |
| Peak Hour Factor           | 83     | 83                     | 83     | 83                         | 83     | 83                             |
| Heavy Vehicles, %          | 4      | 3                      | 3      | 2                          | 9      | 10                             |
| Mvmt Flow                  | 622    | 93                     | 99     | 1252                       | 108    | 87                             |
|                            |        |                        |        |                            |        |                                |
| Major/Minor                | Major1 |                        | Major2 |                            | Minor1 |                                |
| Conflicting Flow All       | 0      | 0                      | 715    | 0                          | 1446   | 311                            |
| Stage 1                    | -      | -                      | -      | -                          | 622    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 824    | -                              |
| Critical Hdwy              | -      | -                      | 4.16   | -                          | 6.98   | 7.1                            |
| Critical Hdwy Stg 1        | -      | -                      | -      | -                          | 5.98   | -                              |
| Critical Hdwy Stg 2        | -      | -                      | -      | -                          | 5.98   | -                              |
| Follow-up Hdwy             | -      | -                      | 2.23   | -                          | 3.59   | 3.4                            |
| Pot Cap-1 Maneuver         | -      | -                      | 875    | -                          | 115    | 662                            |
| Stage 1                    | -      | -                      | -      | -                          | 479    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 374    | -                              |
| Platoon blocked, %         | -      | -                      |        | -                          |        |                                |
| Mov Cap-1 Maneuver         | -      | -                      | 875    | - ~ 102                    | 662    |                                |
| Mov Cap-2 Maneuver         | -      | -                      | -      | - ~ 102                    | -      |                                |
| Stage 1                    | -      | -                      | -      | -                          | 479    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 332    | -                              |
|                            |        |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Approach                   | EB     |                        | WB     |                            | NB     |                                |
| HCM Control Delay, s       | 0      |                        | 0.7    |                            | 189.3  |                                |
| HCM LOS                    |        |                        |        |                            | F      |                                |
|                            |        |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Minor Lane/Major Mvmt      | NBLn1  | EBT                    | EBR    | WBL                        | WBT    |                                |
| Capacity (veh/h)           | 163    | -                      | -      | 875                        | -      |                                |
| HCM Lane V/C Ratio         | 1.197  | -                      | -      | 0.113                      | -      |                                |
| HCM Control Delay (s)      | 189.3  | -                      | -      | 9.6                        | -      |                                |
| HCM Lane LOS               | F      | -                      | -      | A                          | -      |                                |
| HCM 95th %tile Q(veh)      | 10.8   | -                      | -      | 0.4                        | -      |                                |
| Notes                      |        |                        |        |                            |        |                                |
| ~: Volume exceeds capacity |        | \$: Delay exceeds 300s |        | +: Computation Not Defined |        | *: All major volume in platoon |

| Intersection               |        |                        |        |                            |        |                                |     |
|----------------------------|--------|------------------------|--------|----------------------------|--------|--------------------------------|-----|
| Int Delay, s/veh           | 29     |                        |        |                            |        |                                |     |
| Movement                   | EBT    | EBR                    | WBL    | WBT                        | NBL    | NBR                            |     |
| Lane Configurations        | ↑↑     | ↑                      | ↑      | ↑↑                         | ↑      | ↑                              |     |
| Traffic Vol, veh/h         | 518    | 70                     | 62     | 911                        | 210    | 185                            |     |
| Future Vol, veh/h          | 518    | 70                     | 62     | 911                        | 210    | 185                            |     |
| Conflicting Peds, #/hr     | 0      | 0                      | 0      | 0                          | 0      | 0                              |     |
| Sign Control               | Free   | Free                   | Free   | Free                       | Stop   | Stop                           |     |
| RT Channelized             | -      | Free                   | -      | None                       | -      | Yield                          |     |
| Storage Length             | -      | 100                    | 50     | -                          | 0      | 300                            |     |
| Veh in Median Storage, #   | 0      | -                      | -      | 0                          | 0      | -                              |     |
| Grade, %                   | 0      | -                      | -      | 0                          | 0      | -                              |     |
| Peak Hour Factor           | 92     | 92                     | 92     | 92                         | 92     | 92                             |     |
| Heavy Vehicles, %          | 2      | 2                      | 2      | 2                          | 2      | 2                              |     |
| Mvmt Flow                  | 563    | 76                     | 67     | 990                        | 228    | 201                            |     |
|                            |        |                        |        |                            |        |                                |     |
| Major/Minor                | Major1 |                        | Major2 |                            | Minor1 |                                |     |
| Conflicting Flow All       | 0      | -                      | 563    | 0                          | 1192   | 282                            |     |
| Stage 1                    | -      | -                      | -      | -                          | 563    | -                              |     |
| Stage 2                    | -      | -                      | -      | -                          | 629    | -                              |     |
| Critical Hdwy              | -      | -                      | 4.14   | -                          | 6.84   | 6.94                           |     |
| Critical Hdwy Stg 1        | -      | -                      | -      | -                          | 5.84   | -                              |     |
| Critical Hdwy Stg 2        | -      | -                      | -      | -                          | 5.84   | -                              |     |
| Follow-up Hdwy             | -      | -                      | 2.22   | -                          | 3.52   | 3.32                           |     |
| Pot Cap-1 Maneuver         | -      | 0                      | 1005   | -                          | ~ 180  | 715                            |     |
| Stage 1                    | -      | 0                      | -      | -                          | 534    | -                              |     |
| Stage 2                    | -      | 0                      | -      | -                          | 494    | -                              |     |
| Platoon blocked, %         | -      |                        |        | -                          |        |                                |     |
| Mov Cap-1 Maneuver         | -      | -                      | 1005   | -                          | ~ 168  | 715                            |     |
| Mov Cap-2 Maneuver         | -      | -                      | -      | -                          | ~ 168  | -                              |     |
| Stage 1                    | -      | -                      | -      | -                          | 534    | -                              |     |
| Stage 2                    | -      | -                      | -      | -                          | 461    | -                              |     |
|                            |        |                        |        |                            |        |                                |     |
|                            |        |                        |        |                            |        |                                |     |
| Approach                   | EB     |                        | WB     |                            | NB     |                                |     |
| HCM Control Delay, s       | 0      |                        | 0.6    |                            | 137    |                                |     |
| HCM LOS                    |        |                        |        |                            | F      |                                |     |
|                            |        |                        |        |                            |        |                                |     |
|                            |        |                        |        |                            |        |                                |     |
| Minor Lane/Major Mvmt      | NBLn1  |                        | NBLn2  |                            | EBT    | WBL                            | WBT |
| Capacity (veh/h)           | 168    |                        | 715    |                            | -      | 1005                           | -   |
| HCM Lane V/C Ratio         | 1.359  |                        | 0.281  |                            | -      | 0.067                          | -   |
| HCM Control Delay (s)      | 247.2  |                        | 12     |                            | -      | 8.8                            | -   |
| HCM Lane LOS               | F      |                        | B      |                            | -      | A                              | -   |
| HCM 95th %tile Q(veh)      | 13.8   |                        | 1.2    |                            | -      | 0.2                            | -   |
| Notes                      |        |                        |        |                            |        |                                |     |
| ~: Volume exceeds capacity |        | \$: Delay exceeds 300s |        | +: Computation Not Defined |        | *: All major volume in platoon |     |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.2  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑    |      |
| Traffic Vol, veh/h       | 1144 | 15   | 0    | 666  | 8    | 0    |
| Future Vol, veh/h        | 1144 | 15   | 0    | 666  | 8    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 90   | 90   | 90   | 90   | 90   | 90   |
| Heavy Vehicles, %        | 1    | 8    | 2    | 1    | 14   | 2    |
| Mvmt Flow                | 1271 | 17   | 0    | 740  | 9    | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1288   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.14   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.22   |
| Pot Cap-1 Maneuver   | -      | -      | 534    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 534    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 56.3 |
| HCM LOS              |    |    | F    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 79    | -   | -   | 534 | -   |
| HCM Lane V/C Ratio    | 0.113 | -   | -   | -   | -   |
| HCM Control Delay (s) | 56.3  | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.4   | -   | -   | 0   | -   |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 2.4    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     | ↗    | ↘      | ↑↑    | ↘↗     |      |
| Traffic Vol, veh/h       | 1219   | 25   | 27     | 580   | 31     | 52   |
| Future Vol, veh/h        | 1219   | 25   | 27     | 580   | 31     | 52   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1325   | 27   | 29     | 630   | 34     | 57   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1352   | 0     | 1698   | 663  |
| Stage 1                  | -      | -    | -      | -     | 1325   | -    |
| Stage 2                  | -      | -    | -      | -     | 373    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 6.9  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 516    | -     | 85     | 409  |
| Stage 1                  | -      | -    | -      | -     | 216    | -    |
| Stage 2                  | -      | -    | -      | -     | 672    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 516    | -     | 80     | 409  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 80     | -    |
| Stage 1                  | -      | -    | -      | -     | 216    | -    |
| Stage 2                  | -      | -    | -      | -     | 634    | -    |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.6    |       | 52.6   |      |
| HCM LOS                  | F      |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 161    | -    | -      | 516   | -      |      |
| HCM Lane V/C Ratio       | 0.56   | -    | -      | 0.057 | -      |      |
| HCM Control Delay (s)    | 52.6   | -    | -      | 12.4  | -      |      |
| HCM Lane LOS             | F      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 2.9    | -    | -      | 0.2   | -      |      |

| Intersection               |           |                        |        |                            |          |                                |
|----------------------------|-----------|------------------------|--------|----------------------------|----------|--------------------------------|
| Int Delay, s/veh           | 98.9      |                        |        |                            |          |                                |
| Movement                   | EBT       | EBR                    | WBL    | WBT                        | NBL      | NBR                            |
| Lane Configurations        | ↑↑        | ↑                      | ↑      | ↑↑                         | ↑        | ↑                              |
| Traffic Vol, veh/h         | 1035      | 236                    | 208    | 466                        | 141      | 124                            |
| Future Vol, veh/h          | 1035      | 236                    | 208    | 466                        | 141      | 124                            |
| Conflicting Peds, #/hr     | 0         | 0                      | 0      | 0                          | 0        | 0                              |
| Sign Control               | Free      | Free                   | Free   | Free                       | Stop     | Stop                           |
| RT Channelized             | -         | Free                   | -      | None                       | -        | Yield                          |
| Storage Length             | -         | 100                    | 50     | -                          | 0        | 300                            |
| Veh in Median Storage, #   | 0         | -                      | -      | 0                          | 0        | -                              |
| Grade, %                   | 0         | -                      | -      | 0                          | 0        | -                              |
| Peak Hour Factor           | 92        | 92                     | 92     | 92                         | 92       | 92                             |
| Heavy Vehicles, %          | 2         | 2                      | 2      | 2                          | 2        | 2                              |
| Mvmt Flow                  | 1125      | 257                    | 226    | 507                        | 153      | 135                            |
|                            |           |                        |        |                            |          |                                |
| Major/Minor                | Major1    |                        | Major2 |                            | Minor1   |                                |
| Conflicting Flow All       | 0         | -                      | 1125   | 0                          | 1831     | 563                            |
| Stage 1                    | -         | -                      | -      | -                          | 1125     | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 706      | -                              |
| Critical Hdwy              | -         | -                      | 4.14   | -                          | 6.84     | 6.94                           |
| Critical Hdwy Stg 1        | -         | -                      | -      | -                          | 5.84     | -                              |
| Critical Hdwy Stg 2        | -         | -                      | -      | -                          | 5.84     | -                              |
| Follow-up Hdwy             | -         | -                      | 2.22   | -                          | 3.52     | 3.32                           |
| Pot Cap-1 Maneuver         | -         | 0                      | 617    | -                          | ~ 68     | 470                            |
| Stage 1                    | -         | 0                      | -      | -                          | 272      | -                              |
| Stage 2                    | -         | 0                      | -      | -                          | 450      | -                              |
| Platoon blocked, %         | -         |                        |        | -                          |          |                                |
| Mov Cap-1 Maneuver         | -         | -                      | 617    | -                          | ~ 43     | 470                            |
| Mov Cap-2 Maneuver         | -         | -                      | -      | -                          | ~ 43     | -                              |
| Stage 1                    | -         | -                      | -      | -                          | 272      | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 285      | -                              |
|                            |           |                        |        |                            |          |                                |
|                            |           |                        |        |                            |          |                                |
| Approach                   | EB        |                        | WB     |                            | NB       |                                |
| HCM Control Delay, s       | 0         |                        | 4.4    |                            | \$ 725.2 |                                |
| HCM LOS                    |           |                        |        |                            | F        |                                |
|                            |           |                        |        |                            |          |                                |
|                            |           |                        |        |                            |          |                                |
| Minor Lane/Major Mvmt      | NBLn1     |                        | NBLn2  | EBT                        | WBL      | WBT                            |
| Capacity (veh/h)           | 43        |                        | 470    | -                          | 617      | -                              |
| HCM Lane V/C Ratio         | 3.564     |                        | 0.287  | -                          | 0.366    | -                              |
| HCM Control Delay (s)      | \$ 1349.1 |                        | 15.7   | -                          | 14.2     | -                              |
| HCM Lane LOS               | F         |                        | C      | -                          | B        | -                              |
| HCM 95th %tile Q(veh)      | 17.1      |                        | 1.2    | -                          | 1.7      | -                              |
| Notes                      |           |                        |        |                            |          |                                |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |        | +: Computation Not Defined |          | *: All major volume in platoon |



| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 0.3    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     |      |        | ↑↑    | ↑      |      |
| Traffic Vol, veh/h       | 779    | 11   | 1      | 1043  | 16     | 3    |
| Future Vol, veh/h        | 779    | 11   | 1      | 1043  | 16     | 3    |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | -    | -      | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 7      | 11   | 0      | 2     | 0      | 33   |
| Mvmt Flow                | 847    | 12   | 1      | 1134  | 17     | 3    |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 859    | 0     | 1422   | 430  |
| Stage 1                  | -      | -    | -      | -     | 853    | -    |
| Stage 2                  | -      | -    | -      | -     | 569    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 7.56 |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.63 |
| Pot Cap-1 Maneuver       | -      | -    | 791    | -     | 129    | 495  |
| Stage 1                  | -      | -    | -      | -     | 383    | -    |
| Stage 2                  | -      | -    | -      | -     | 535    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 791    | -     | 129    | 495  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 129    | -    |
| Stage 1                  | -      | -    | -      | -     | 383    | -    |
| Stage 2                  | -      | -    | -      | -     | 533    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0      |       | 33.7   |      |
| HCM LOS                  |        |      |        |       | D      |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 146    | -    | -      | 791   | -      |      |
| HCM Lane V/C Ratio       | 0.141  | -    | -      | 0.001 | -      |      |
| HCM Control Delay (s)    | 33.7   | -    | -      | 9.6   | 0      |      |
| HCM Lane LOS             | D      | -    | -      | A     | A      |      |
| HCM 95th %tile Q(veh)    | 0.5    | -    | -      | 0     | -      |      |

| Intersection                                                                                                         |          |      |        |       |          |      |
|----------------------------------------------------------------------------------------------------------------------|----------|------|--------|-------|----------|------|
| Int Delay, s/veh                                                                                                     | 33.4     |      |        |       |          |      |
| Movement                                                                                                             | EBT      | EBR  | WBL    | WBT   | NBL      | NBR  |
| Lane Configurations                                                                                                  | ↑↑       | ↗    | ↘      | ↑↑    | ↘↗       |      |
| Traffic Vol, veh/h                                                                                                   | 567      | 83   | 94     | 1150  | 97       | 80   |
| Future Vol, veh/h                                                                                                    | 567      | 83   | 94     | 1150  | 97       | 80   |
| Conflicting Peds, #/hr                                                                                               | 0        | 0    | 0      | 0     | 0        | 0    |
| Sign Control                                                                                                         | Free     | Free | Free   | Free  | Stop     | Stop |
| RT Channelized                                                                                                       | -        | None | -      | None  | -        | None |
| Storage Length                                                                                                       | -        | 200  | 150    | -     | 0        | -    |
| Veh in Median Storage, #                                                                                             | 0        | -    | -      | 0     | 0        | -    |
| Grade, %                                                                                                             | 0        | -    | -      | 0     | 0        | -    |
| Peak Hour Factor                                                                                                     | 83       | 83   | 83     | 83    | 83       | 83   |
| Heavy Vehicles, %                                                                                                    | 4        | 3    | 3      | 2     | 9        | 10   |
| Mvmt Flow                                                                                                            | 683      | 100  | 113    | 1386  | 117      | 96   |
|                                                                                                                      |          |      |        |       |          |      |
| Major/Minor                                                                                                          | Major1   |      | Major2 |       | Minor1   |      |
| Conflicting Flow All                                                                                                 | 0        | 0    | 783    | 0     | 1602     | 342  |
| Stage 1                                                                                                              | -        | -    | -      | -     | 683      | -    |
| Stage 2                                                                                                              | -        | -    | -      | -     | 919      | -    |
| Critical Hdwy                                                                                                        | -        | -    | 4.16   | -     | 6.98     | 7.1  |
| Critical Hdwy Stg 1                                                                                                  | -        | -    | -      | -     | 5.98     | -    |
| Critical Hdwy Stg 2                                                                                                  | -        | -    | -      | -     | 5.98     | -    |
| Follow-up Hdwy                                                                                                       | -        | -    | 2.23   | -     | 3.59     | 3.4  |
| Pot Cap-1 Maneuver                                                                                                   | -        | -    | 824    | -     | ~ 90     | 631  |
| Stage 1                                                                                                              | -        | -    | -      | -     | 445      | -    |
| Stage 2                                                                                                              | -        | -    | -      | -     | 333      | -    |
| Platoon blocked, %                                                                                                   | -        | -    |        | -     |          |      |
| Mov Cap-1 Maneuver                                                                                                   | -        | -    | 824    | -     | ~ 78     | 631  |
| Mov Cap-2 Maneuver                                                                                                   | -        | -    | -      | -     | ~ 78     | -    |
| Stage 1                                                                                                              | -        | -    | -      | -     | 445      | -    |
| Stage 2                                                                                                              | -        | -    | -      | -     | 287      | -    |
|                                                                                                                      |          |      |        |       |          |      |
| Approach                                                                                                             | EB       |      | WB     |       | NB       |      |
| HCM Control Delay, s                                                                                                 | 0        |      | 0.8    |       | \$ 385.7 |      |
| HCM LOS                                                                                                              | F        |      |        |       |          |      |
|                                                                                                                      |          |      |        |       |          |      |
| Minor Lane/Major Mvmt                                                                                                | NBLn1    | EBT  | EBR    | WBL   | WBT      |      |
| Capacity (veh/h)                                                                                                     | 129      | -    | -      | 824   | -        |      |
| HCM Lane V/C Ratio                                                                                                   | 1.653    | -    | -      | 0.137 | -        |      |
| HCM Control Delay (s)                                                                                                | \$ 385.7 | -    | -      | 10.1  | -        |      |
| HCM Lane LOS                                                                                                         | F        | -    | -      | B     | -        |      |
| HCM 95th %tile Q(veh)                                                                                                | 15.6     | -    | -      | 0.5   | -        |      |
| Notes                                                                                                                |          |      |        |       |          |      |
| ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    *: All major volume in platoon |          |      |        |       |          |      |

| Intersection               |          |                        |        |      |                            |       |                                |
|----------------------------|----------|------------------------|--------|------|----------------------------|-------|--------------------------------|
| Int Delay, s/veh           | 73.7     |                        |        |      |                            |       |                                |
| Movement                   | EBT      | EBR                    | WBL    | WBT  | NBL                        | NBR   |                                |
| Lane Configurations        | ↑↑       | ↑                      | ↑      | ↑↑   | ↑                          | ↑     |                                |
| Traffic Vol, veh/h         | 557      | 90                     | 80     | 979  | 265                        | 233   |                                |
| Future Vol, veh/h          | 557      | 90                     | 80     | 979  | 265                        | 233   |                                |
| Conflicting Peds, #/hr     | 0        | 0                      | 0      | 0    | 0                          | 0     |                                |
| Sign Control               | Free     | Free                   | Free   | Free | Stop                       | Stop  |                                |
| RT Channelized             | -        | Free                   | -      | None | -                          | Yield |                                |
| Storage Length             | -        | 100                    | 50     | -    | 0                          | 300   |                                |
| Veh in Median Storage, #   | 0        | -                      | -      | 0    | 0                          | -     |                                |
| Grade, %                   | 0        | -                      | -      | 0    | 0                          | -     |                                |
| Peak Hour Factor           | 92       | 92                     | 92     | 92   | 92                         | 92    |                                |
| Heavy Vehicles, %          | 2        | 2                      | 2      | 2    | 2                          | 2     |                                |
| Mvmt Flow                  | 605      | 98                     | 87     | 1064 | 288                        | 253   |                                |
|                            |          |                        |        |      |                            |       |                                |
| Major/Minor                | Major1   |                        | Major2 |      | Minor1                     |       |                                |
| Conflicting Flow All       | 0        | -                      | 605    | 0    | 1311                       | 303   |                                |
| Stage 1                    | -        | -                      | -      | -    | 605                        | -     |                                |
| Stage 2                    | -        | -                      | -      | -    | 706                        | -     |                                |
| Critical Hdwy              | -        | -                      | 4.14   | -    | 6.84                       | 6.94  |                                |
| Critical Hdwy Stg 1        | -        | -                      | -      | -    | 5.84                       | -     |                                |
| Critical Hdwy Stg 2        | -        | -                      | -      | -    | 5.84                       | -     |                                |
| Follow-up Hdwy             | -        | -                      | 2.22   | -    | 3.52                       | 3.32  |                                |
| Pot Cap-1 Maneuver         | -        | 0                      | 969    | -    | ~ 150                      | 693   |                                |
| Stage 1                    | -        | 0                      | -      | -    | 508                        | -     |                                |
| Stage 2                    | -        | 0                      | -      | -    | 450                        | -     |                                |
| Platoon blocked, %         | -        |                        |        | -    |                            |       |                                |
| Mov Cap-1 Maneuver         | -        | -                      | 969    | -    | ~ 137                      | 693   |                                |
| Mov Cap-2 Maneuver         | -        | -                      | -      | -    | ~ 137                      | -     |                                |
| Stage 1                    | -        | -                      | -      | -    | 508                        | -     |                                |
| Stage 2                    | -        | -                      | -      | -    | 410                        | -     |                                |
|                            |          |                        |        |      |                            |       |                                |
|                            |          |                        |        |      |                            |       |                                |
| Approach                   | EB       |                        | WB     |      | NB                         |       |                                |
| HCM Control Delay, s       | 0        |                        | 0.7    |      | \$ 311.2                   |       |                                |
| HCM LOS                    |          |                        |        |      | F                          |       |                                |
|                            |          |                        |        |      |                            |       |                                |
|                            |          |                        |        |      |                            |       |                                |
| Minor Lane/Major Mvmt      | NBLn1    |                        | NBLn2  |      | EBT                        | WBL   | WBT                            |
| Capacity (veh/h)           | 137      |                        | 693    |      | -                          | 969   | -                              |
| HCM Lane V/C Ratio         | 2.103    |                        | 0.365  |      | -                          | 0.09  | -                              |
| HCM Control Delay (s)      | \$ 573.3 |                        | 13.2   |      | -                          | 9.1   | -                              |
| HCM Lane LOS               | F        |                        | B      |      | -                          | A     | -                              |
| HCM 95th %tile Q(veh)      | 23.5     |                        | 1.7    |      | -                          | 0.3   | -                              |
| Notes                      |          |                        |        |      |                            |       |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |        |      | +: Computation Not Defined |       | *: All major volume in platoon |

| Intersection             |        |      |        |      |        |      |
|--------------------------|--------|------|--------|------|--------|------|
| Int Delay, s/veh         | 0.3    |      |        |      |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT  | NBL    | NBR  |
| Lane Configurations      | ↑↑     |      |        | ↑↑   | ↑      |      |
| Traffic Vol, veh/h       | 1251   | 16   | 0      | 745  | 9      | 0    |
| Future Vol, veh/h        | 1251   | 16   | 0      | 745  | 9      | 0    |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0    | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free | Stop   | Stop |
| RT Channelized           | -      | None | -      | None | -      | None |
| Storage Length           | -      | -    | -      | -    | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0    | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0    | 0      | -    |
| Peak Hour Factor         | 90     | 90   | 90     | 90   | 90     | 90   |
| Heavy Vehicles, %        | 1      | 8    | 2      | 1    | 14     | 2    |
| Mvmt Flow                | 1390   | 18   | 0      | 828  | 10     | 0    |
|                          |        |      |        |      |        |      |
| Major/Minor              | Major1 |      | Major2 |      | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1408   | 0    | 1813   | 704  |
| Stage 1                  | -      | -    | -      | -    | 1399   | -    |
| Stage 2                  | -      | -    | -      | -    | 414    | -    |
| Critical Hdwy            | -      | -    | 4.14   | -    | 7.08   | 6.94 |
| Critical Hdwy Stg 1      | -      | -    | -      | -    | 6.08   | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -    | 6.08   | -    |
| Follow-up Hdwy           | -      | -    | 2.22   | -    | 3.64   | 3.32 |
| Pot Cap-1 Maneuver       | -      | -    | 481    | -    | 61     | 379  |
| Stage 1                  | -      | -    | -      | -    | 174    | -    |
| Stage 2                  | -      | -    | -      | -    | 602    | -    |
| Platoon blocked, %       | -      | -    |        | -    |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 481    | -    | 61     | 379  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -    | 61     | -    |
| Stage 1                  | -      | -    | -      | -    | 174    | -    |
| Stage 2                  | -      | -    | -      | -    | 602    | -    |
|                          |        |      |        |      |        |      |
|                          |        |      |        |      |        |      |
| Approach                 | EB     |      | WB     |      | NB     |      |
| HCM Control Delay, s     | 0      |      | 0      |      | 75.3   |      |
| HCM LOS                  |        |      |        |      | F      |      |
|                          |        |      |        |      |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL  | WBT    |      |
| Capacity (veh/h)         | 61     | -    | -      | 481  | -      |      |
| HCM Lane V/C Ratio       | 0.164  | -    | -      | -    | -      |      |
| HCM Control Delay (s)    | 75.3   | -    | -      | 0    | -      |      |
| HCM Lane LOS             | F      | -    | -      | A    | -      |      |
| HCM 95th %tile Q(veh)    | 0.5    | -    | -      | 0    | -      |      |

Intersection

Int Delay, s/veh 4.3

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑   | ↑    | ↑    | ↑↑   | ↑    | ↑    |
| Traffic Vol, veh/h       | 1339 | 27   | 33   | 644  | 33   | 62   |
| Future Vol, veh/h        | 1339 | 27   | 33   | 644  | 33   | 62   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | 200  | 150  | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 9    | 0    | 0    | 2    | 0    | 0    |
| Mvmt Flow                | 1455 | 29   | 36   | 700  | 36   | 67   |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1484   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.1    |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.2    |
| Pot Cap-1 Maneuver   | -      | -      | 459    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 459    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.7 | 92.8 |
| HCM LOS              |    |     | F    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 132   | -   | -   | 459   | -   |
| HCM Lane V/C Ratio    | 0.782 | -   | -   | 0.078 | -   |
| HCM Control Delay (s) | 92.8  | -   | -   | 13.5  | -   |
| HCM Lane LOS          | F     | -   | -   | B     | -   |
| HCM 95th %tile Q(veh) | 4.7   | -   | -   | 0.3   | -   |



HCM 6th TWSC  
4: Driveway #1 & Old Cornelia Highway

2030 - Turn Lane Improvements w Widening  
PM Peak Hour

| Intersection               |           |                        |        |                            |           |                                |
|----------------------------|-----------|------------------------|--------|----------------------------|-----------|--------------------------------|
| Int Delay, s/veh           | 267.6     |                        |        |                            |           |                                |
| Movement                   | EBT       | EBR                    | WBL    | WBT                        | NBL       | NBR                            |
| Lane Configurations        | ↑↑        | ↑                      | ↑      | ↑↑                         | ↑         | ↑                              |
| Traffic Vol, veh/h         | 1113      | 288                    | 253    | 501                        | 176       | 154                            |
| Future Vol, veh/h          | 1113      | 288                    | 253    | 501                        | 176       | 154                            |
| Conflicting Peds, #/hr     | 0         | 0                      | 0      | 0                          | 0         | 0                              |
| Sign Control               | Free      | Free                   | Free   | Free                       | Stop      | Stop                           |
| RT Channelized             | -         | Free                   | -      | None                       | -         | Yield                          |
| Storage Length             | -         | 100                    | 50     | -                          | 0         | 300                            |
| Veh in Median Storage, #   | 0         | -                      | -      | 0                          | 0         | -                              |
| Grade, %                   | 0         | -                      | -      | 0                          | 0         | -                              |
| Peak Hour Factor           | 92        | 92                     | 92     | 92                         | 92        | 92                             |
| Heavy Vehicles, %          | 2         | 2                      | 2      | 2                          | 2         | 2                              |
| Mvmt Flow                  | 1210      | 313                    | 275    | 545                        | 191       | 167                            |
|                            |           |                        |        |                            |           |                                |
| Major/Minor                | Major1    |                        | Major2 |                            | Minor1    |                                |
| Conflicting Flow All       | 0         | -                      | 1210   | 0                          | 2033      | 605                            |
| Stage 1                    | -         | -                      | -      | -                          | 1210      | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 823       | -                              |
| Critical Hdwy              | -         | -                      | 4.14   | -                          | 6.84      | 6.94                           |
| Critical Hdwy Stg 1        | -         | -                      | -      | -                          | 5.84      | -                              |
| Critical Hdwy Stg 2        | -         | -                      | -      | -                          | 5.84      | -                              |
| Follow-up Hdwy             | -         | -                      | 2.22   | -                          | 3.52      | 3.32                           |
| Pot Cap-1 Maneuver         | -         | 0                      | 572    | -                          | ~ 49      | 441                            |
| Stage 1                    | -         | 0                      | -      | -                          | 245       | -                              |
| Stage 2                    | -         | 0                      | -      | -                          | 392       | -                              |
| Platoon blocked, %         | -         |                        |        | -                          |           |                                |
| Mov Cap-1 Maneuver         | -         | -                      | 572    | -                          | ~ 25      | 441                            |
| Mov Cap-2 Maneuver         | -         | -                      | -      | -                          | ~ 25      | -                              |
| Stage 1                    | -         | -                      | -      | -                          | 245       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 203       | -                              |
|                            |           |                        |        |                            |           |                                |
|                            |           |                        |        |                            |           |                                |
| Approach                   | EB        |                        | WB     |                            | NB        |                                |
| HCM Control Delay, s       | 0         |                        | 5.7    |                            | \$ 1768.4 |                                |
| HCM LOS                    |           |                        |        |                            | F         |                                |
|                            |           |                        |        |                            |           |                                |
|                            |           |                        |        |                            |           |                                |
| Minor Lane/Major Mvmt      | NBLn1     |                        | NBLn2  | EBT                        | WBL       | WBT                            |
| Capacity (veh/h)           | 25        |                        | 441    | -                          | 572       | -                              |
| HCM Lane V/C Ratio         | 7.652     |                        | 0.38   | -                          | 0.481     | -                              |
| HCM Control Delay (s)      | \$ 3299.9 |                        | 18.1   | -                          | 17        | -                              |
| HCM Lane LOS               | F         |                        | C      | -                          | C         | -                              |
| HCM 95th %tile Q(veh)      | 23.8      |                        | 1.7    | -                          | 2.6       | -                              |
| Notes                      |           |                        |        |                            |           |                                |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |        | +: Computation Not Defined |           | *: All major volume in platoon |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.4  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑    |      |
| Traffic Vol, veh/h       | 879  | 12   | 1    | 1137 | 17   | 4    |
| Future Vol, veh/h        | 879  | 12   | 1    | 1137 | 17   | 4    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 7    | 11   | 0    | 2    | 0    | 33   |
| Mvmt Flow                | 955  | 13   | 1    | 1236 | 18   | 4    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |      |
|----------------------|--------|--------|--------|---|------|------|
| Conflicting Flow All | 0      | 0      | 968    | 0 | 1582 | 484  |
| Stage 1              | -      | -      | -      | - | 962  | -    |
| Stage 2              | -      | -      | -      | - | 620  | -    |
| Critical Hdwy        | -      | -      | 4.1    | - | 6.8  | 7.56 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.8  | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.8  | -    |
| Follow-up Hdwy       | -      | -      | 2.2    | - | 3.5  | 3.63 |
| Pot Cap-1 Maneuver   | -      | -      | 720    | - | 101  | 454  |
| Stage 1              | -      | -      | -      | - | 336  | -    |
| Stage 2              | -      | -      | -      | - | 504  | -    |
| Platoon blocked, %   | -      | -      | -      | - | -    | -    |
| Mov Cap-1 Maneuver   | -      | -      | 720    | - | 101  | 454  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 101  | -    |
| Stage 1              | -      | -      | -      | - | 336  | -    |
| Stage 2              | -      | -      | -      | - | 502  | -    |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 42.3 |
| HCM LOS              |    |    | E    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 119   | -   | -   | 720   | -   |
| HCM Lane V/C Ratio    | 0.192 | -   | -   | 0.002 | -   |
| HCM Control Delay (s) | 42.3  | -   | -   | 10    | 0   |
| HCM Lane LOS          | E     | -   | -   | B     | A   |
| HCM 95th %tile Q(veh) | 0.7   | -   | -   | 0     | -   |

HCM 6th TWSC  
2: White Sulphur Elementary School & Old Cornelia Highway

2035 - Turn Lane Improvements w Widening

AM Peak Hour

| Intersection               |          |                        |        |                            |          |                                |
|----------------------------|----------|------------------------|--------|----------------------------|----------|--------------------------------|
| Int Delay, s/veh           | 63.6     |                        |        |                            |          |                                |
| Movement                   | EBT      | EBR                    | WBL    | WBT                        | NBL      | NBR                            |
| Lane Configurations        | ↑↑       | ↗                      | ↖      | ↑↑                         | ↘        |                                |
| Traffic Vol, veh/h         | 623      | 90                     | 109    | 1277                       | 105      | 89                             |
| Future Vol, veh/h          | 623      | 90                     | 109    | 1277                       | 105      | 89                             |
| Conflicting Peds, #/hr     | 0        | 0                      | 0      | 0                          | 0        | 0                              |
| Sign Control               | Free     | Free                   | Free   | Free                       | Stop     | Stop                           |
| RT Channelized             | -        | None                   | -      | None                       | -        | None                           |
| Storage Length             | -        | 200                    | 150    | -                          | 0        | -                              |
| Veh in Median Storage, #   | 0        | -                      | -      | 0                          | 0        | -                              |
| Grade, %                   | 0        | -                      | -      | 0                          | 0        | -                              |
| Peak Hour Factor           | 83       | 83                     | 83     | 83                         | 83       | 83                             |
| Heavy Vehicles, %          | 4        | 3                      | 3      | 2                          | 9        | 10                             |
| Mvmt Flow                  | 751      | 108                    | 131    | 1539                       | 127      | 107                            |
|                            |          |                        |        |                            |          |                                |
| Major/Minor                | Major1   |                        | Major2 |                            | Minor1   |                                |
| Conflicting Flow All       | 0        | 0                      | 859    | 0                          | 1783     | 376                            |
| Stage 1                    | -        | -                      | -      | -                          | 751      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 1032     | -                              |
| Critical Hdwy              | -        | -                      | 4.16   | -                          | 6.98     | 7.1                            |
| Critical Hdwy Stg 1        | -        | -                      | -      | -                          | 5.98     | -                              |
| Critical Hdwy Stg 2        | -        | -                      | -      | -                          | 5.98     | -                              |
| Follow-up Hdwy             | -        | -                      | 2.23   | -                          | 3.59     | 3.4                            |
| Pot Cap-1 Maneuver         | -        | -                      | 772    | -                          | ~ 68     | 599                            |
| Stage 1                    | -        | -                      | -      | -                          | 409      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 289      | -                              |
| Platoon blocked, %         | -        | -                      | -      | -                          | -        | -                              |
| Mov Cap-1 Maneuver         | -        | -                      | 772    | -                          | ~ 56     | 599                            |
| Mov Cap-2 Maneuver         | -        | -                      | -      | -                          | ~ 56     | -                              |
| Stage 1                    | -        | -                      | -      | -                          | 409      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 240      | -                              |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Approach                   | EB       |                        | WB     |                            | NB       |                                |
| HCM Control Delay, s       | 0        |                        | 0.8    |                            | \$ 746.5 |                                |
| HCM LOS                    |          |                        |        |                            | F        |                                |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Minor Lane/Major Mvmt      | NBLn1    | EBT                    | EBR    | WBL                        | WBT      |                                |
| Capacity (veh/h)           | 96       | -                      | -      | 772                        | -        |                                |
| HCM Lane V/C Ratio         | 2.435    | -                      | -      | 0.17                       | -        |                                |
| HCM Control Delay (s)      | \$ 746.5 | -                      | -      | 10.6                       | -        |                                |
| HCM Lane LOS               | F        | -                      | -      | B                          | -        |                                |
| HCM 95th %tile Q(veh)      | 21.3     | -                      | -      | 0.6                        | -        |                                |
| Notes                      |          |                        |        |                            |          |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |        | +: Computation Not Defined |          | *: All major volume in platoon |

HCM 6th TWSC  
4: Driveway #1 & Old Cornelia Highway

2035 - Turn Lane Improvements w Widening  
AM Peak Hour

| Intersection               |           |                        |        |                            |          |                                |
|----------------------------|-----------|------------------------|--------|----------------------------|----------|--------------------------------|
| Int Delay, s/veh           | 168.1     |                        |        |                            |          |                                |
| Movement                   | EBT       | EBR                    | WBL    | WBT                        | NBL      | NBR                            |
| Lane Configurations        | ↑↑        | ↑                      | ↑      | ↑↑                         | ↑        | ↑                              |
| Traffic Vol, veh/h         | 601       | 111                    | 98     | 1156                       | 329      | 290                            |
| Future Vol, veh/h          | 601       | 111                    | 98     | 1156                       | 329      | 290                            |
| Conflicting Peds, #/hr     | 0         | 0                      | 0      | 0                          | 0        | 0                              |
| Sign Control               | Free      | Free                   | Free   | Free                       | Stop     | Stop                           |
| RT Channelized             | -         | Free                   | -      | None                       | -        | Yield                          |
| Storage Length             | -         | 100                    | 50     | -                          | 0        | 300                            |
| Veh in Median Storage, #   | 0         | -                      | -      | 0                          | 0        | -                              |
| Grade, %                   | 0         | -                      | -      | 0                          | 0        | -                              |
| Peak Hour Factor           | 92        | 92                     | 92     | 92                         | 92       | 92                             |
| Heavy Vehicles, %          | 2         | 2                      | 2      | 2                          | 2        | 2                              |
| Mvmt Flow                  | 653       | 121                    | 107    | 1257                       | 358      | 315                            |
|                            |           |                        |        |                            |          |                                |
| Major/Minor                | Major1    |                        | Major2 |                            | Minor1   |                                |
| Conflicting Flow All       | 0         | -                      | 653    | 0                          | 1496     | 327                            |
| Stage 1                    | -         | -                      | -      | -                          | 653      | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 843      | -                              |
| Critical Hdwy              | -         | -                      | 4.14   | -                          | 6.84     | 6.94                           |
| Critical Hdwy Stg 1        | -         | -                      | -      | -                          | 5.84     | -                              |
| Critical Hdwy Stg 2        | -         | -                      | -      | -                          | 5.84     | -                              |
| Follow-up Hdwy             | -         | -                      | 2.22   | -                          | 3.52     | 3.32                           |
| Pot Cap-1 Maneuver         | -         | 0                      | 930    | -                          | ~ 113    | 669                            |
| Stage 1                    | -         | 0                      | -      | -                          | 480      | -                              |
| Stage 2                    | -         | 0                      | -      | -                          | 382      | -                              |
| Platoon blocked, %         | -         |                        |        | -                          |          |                                |
| Mov Cap-1 Maneuver         | -         | -                      | 930    | -                          | ~ 100    | 669                            |
| Mov Cap-2 Maneuver         | -         | -                      | -      | -                          | ~ 100    | -                              |
| Stage 1                    | -         | -                      | -      | -                          | 480      | -                              |
| Stage 2                    | -         | -                      | -      | -                          | ~ 338    | -                              |
|                            |           |                        |        |                            |          |                                |
|                            |           |                        |        |                            |          |                                |
| Approach                   | EB        |                        | WB     |                            | NB       |                                |
| HCM Control Delay, s       | 0         |                        | 0.7    |                            | \$ 670.5 |                                |
| HCM LOS                    |           |                        |        |                            | F        |                                |
|                            |           |                        |        |                            |          |                                |
|                            |           |                        |        |                            |          |                                |
| Minor Lane/Major Mvmt      | NBLn1     |                        | NBLn2  | EBT                        | WBL      | WBT                            |
| Capacity (veh/h)           | 100       |                        | 669    | -                          | 930      | -                              |
| HCM Lane V/C Ratio         | 3.576     |                        | 0.471  | -                          | 0.115    | -                              |
| HCM Control Delay (s)      | \$ 1248.2 |                        | 15.1   | -                          | 9.4      | -                              |
| HCM Lane LOS               | F         |                        | C      | -                          | A        | -                              |
| HCM 95th %tile Q(veh)      | 35.9      |                        | 2.5    | -                          | 0.4      | -                              |
| Notes                      |           |                        |        |                            |          |                                |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |        | +: Computation Not Defined |          | *: All major volume in platoon |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.5  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑↑   |      |
| Traffic Vol, veh/h       | 1375 | 17   | 0    | 851  | 10   | 0    |
| Future Vol, veh/h        | 1375 | 17   | 0    | 851  | 10   | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 90   | 90   | 90   | 90   | 90   | 90   |
| Heavy Vehicles, %        | 1    | 8    | 2    | 1    | 14   | 2    |
| Mvmt Flow                | 1528 | 19   | 0    | 946  | 11   | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1547   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.14   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.22   |
| Pot Cap-1 Maneuver   | -      | -      | 425    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 425    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB    |
|----------------------|----|----|-------|
| HCM Control Delay, s | 0  | 0  | 112.5 |
| HCM LOS              |    |    | F     |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 44    | -   | -   | 425 | -   |
| HCM Lane V/C Ratio    | 0.253 | -   | -   | -   | -   |
| HCM Control Delay (s) | 112.5 | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.8   | -   | -   | 0   | -   |



HCM 6th TWSC  
2: White Sulphur Elementary School & Old Cornelia Highway

2035 - Turn Lane Improvements w Widening

PM Peak Hour

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 11.2   |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     | ↗    | ↖      | ↑↑    | ↘      |      |
| Traffic Vol, veh/h       | 1488   | 30   | 41     | 719   | 36     | 76   |
| Future Vol, veh/h        | 1488   | 30   | 41     | 719   | 36     | 76   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1617   | 33   | 45     | 782   | 39     | 83   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1650   | 0     | 2098   | 809  |
| Stage 1                  | -      | -    | -      | -     | 1617   | -    |
| Stage 2                  | -      | -    | -      | -     | 481    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 6.9  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 397    | -     | 46     | 328  |
| Stage 1                  | -      | -    | -      | -     | 151    | -    |
| Stage 2                  | -      | -    | -      | -     | 593    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 397    | -     | 41     | 328  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 41     | -    |
| Stage 1                  | -      | -    | -      | -     | 151    | -    |
| Stage 2                  | -      | -    | -      | -     | 526    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.8    |       | 233.4  |      |
| HCM LOS                  | F      |      |        |       |        |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 101    | -    | -      | 397   | -      |      |
| HCM Lane V/C Ratio       | 1.205  | -    | -      | 0.112 | -      |      |
| HCM Control Delay (s)    | 233.4  | -    | -      | 15.2  | -      |      |
| HCM Lane LOS             | F      | -    | -      | C     | -      |      |
| HCM 95th %tile Q(veh)    | 8.2    | -    | -      | 0.4   | -      |      |

HCM 6th TWSC  
4: Driveway #1 & Old Cornelia Highway

2035 - Turn Lane Improvements w Widening  
PM Peak Hour

| Intersection               |           |                        |        |                            |           |                                |
|----------------------------|-----------|------------------------|--------|----------------------------|-----------|--------------------------------|
| Int Delay, s/veh           | 878.6     |                        |        |                            |           |                                |
| Movement                   | EBT       | EBR                    | WBL    | WBT                        | NBL       | NBR                            |
| Lane Configurations        | ↑↑        | ↑                      | ↑      | ↑↑                         | ↑         | ↑                              |
| Traffic Vol, veh/h         | 1201      | 363                    | 320    | 541                        | 218       | 192                            |
| Future Vol, veh/h          | 1201      | 363                    | 320    | 541                        | 218       | 192                            |
| Conflicting Peds, #/hr     | 0         | 0                      | 0      | 0                          | 0         | 0                              |
| Sign Control               | Free      | Free                   | Free   | Free                       | Stop      | Stop                           |
| RT Channelized             | -         | Free                   | -      | None                       | -         | Yield                          |
| Storage Length             | -         | 100                    | 50     | -                          | 0         | 300                            |
| Veh in Median Storage, #   | 0         | -                      | -      | 0                          | 0         | -                              |
| Grade, %                   | 0         | -                      | -      | 0                          | 0         | -                              |
| Peak Hour Factor           | 92        | 92                     | 92     | 92                         | 92        | 92                             |
| Heavy Vehicles, %          | 2         | 2                      | 2      | 2                          | 2         | 2                              |
| Mvmt Flow                  | 1305      | 395                    | 348    | 588                        | 237       | 209                            |
|                            |           |                        |        |                            |           |                                |
| Major/Minor                | Major1    |                        | Major2 |                            | Minor1    |                                |
| Conflicting Flow All       | 0         | -                      | 1305   | 0                          | 2295      | 653                            |
| Stage 1                    | -         | -                      | -      | -                          | 1305      | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 990       | -                              |
| Critical Hdwy              | -         | -                      | 4.14   | -                          | 6.84      | 6.94                           |
| Critical Hdwy Stg 1        | -         | -                      | -      | -                          | 5.84      | -                              |
| Critical Hdwy Stg 2        | -         | -                      | -      | -                          | 5.84      | -                              |
| Follow-up Hdwy             | -         | -                      | 2.22   | -                          | 3.52      | 3.32                           |
| Pot Cap-1 Maneuver         | -         | 0                      | 526    | -                          | ~ 33      | 410                            |
| Stage 1                    | -         | 0                      | -      | -                          | ~ 218     | -                              |
| Stage 2                    | -         | 0                      | -      | -                          | 320       | -                              |
| Platoon blocked, %         | -         |                        |        | -                          |           |                                |
| Mov Cap-1 Maneuver         | -         | -                      | 526    | -                          | ~ 11      | 410                            |
| Mov Cap-2 Maneuver         | -         | -                      | -      | -                          | ~ 11      | -                              |
| Stage 1                    | -         | -                      | -      | -                          | ~ 218     | -                              |
| Stage 2                    | -         | -                      | -      | -                          | ~ 108     | -                              |
|                            |           |                        |        |                            |           |                                |
|                            |           |                        |        |                            |           |                                |
| Approach                   | EB        |                        | WB     |                            | NB        |                                |
| HCM Control Delay, s       | 0         |                        | 9      |                            | \$ 5278.3 |                                |
| HCM LOS                    |           |                        |        |                            | F         |                                |
|                            |           |                        |        |                            |           |                                |
|                            |           |                        |        |                            |           |                                |
| Minor Lane/Major Mvmt      | NBLn1     |                        | NBLn2  | EBT                        | WBL       | WBT                            |
| Capacity (veh/h)           | 11        |                        | 410    | -                          | 526       | -                              |
| HCM Lane V/C Ratio         | 21.542    |                        | 0.509  | -                          | 0.661     | -                              |
| HCM Control Delay (s)      | \$ 9907.3 |                        | 22.5   | -                          | 24.2      | -                              |
| HCM Lane LOS               | F         |                        | C      | -                          | C         | -                              |
| HCM 95th %tile Q(veh)      | 31.1      |                        | 2.8    | -                          | 4.8       | -                              |
| Notes                      |           |                        |        |                            |           |                                |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |        | +: Computation Not Defined |           | *: All major volume in platoon |

## **2. TRAFFIC SIGNAL**

## **WITHOUT WIDENING**

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0.5                                                                               |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 693                                                                               | 11   | 1      | 958                                                                               | 15                                                                                | 3     |
| Future Vol, veh/h        | 693                                                                               | 11   | 1      | 958                                                                               | 15                                                                                | 3     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 7                                                                                 | 11   | 0      | 2                                                                                 | 0                                                                                 | 33    |
| Mvmt Flow                | 753                                                                               | 12   | 1      | 1041                                                                              | 16                                                                                | 3     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 765    | 0                                                                                 | 1802                                                                              | 759   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 759                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1043                                                                              | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.1    | -                                                                                 | 6.4                                                                               | 6.53  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.4                                                                               | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.4                                                                               | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.2    | -                                                                                 | 3.5                                                                               | 3.597 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 857    | -                                                                                 | 89                                                                                | 360   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 466                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 342                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 857    | -                                                                                 | 89                                                                                | 360   |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 89                                                                                | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 466                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 341                                                                               | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 48.5                                                                              |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | E                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 102                                                                               | -    | -      | 857                                                                               | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.192                                                                             | -    | -      | 0.001                                                                             | -                                                                                 |       |
| HCM Control Delay (s)    | 48.5                                                                              | -    | -      | 9.2                                                                               | 0                                                                                 |       |
| HCM Lane LOS             | E                                                                                 | -    | -      | A                                                                                 | A                                                                                 |       |
| HCM 95th %tile Q(veh)    | 0.7                                                                               | -    | -      | 0                                                                                 | -                                                                                 |       |



HCM 6th TWSC  
2: White Sulphur Elementary School & Old Cornelia Highway

2025 - Traffic Signal  
AM Peak Hour

| Intersection               |        |                        |        |                            |        |                                |
|----------------------------|--------|------------------------|--------|----------------------------|--------|--------------------------------|
| Int Delay, s/veh           | 61.8   |                        |        |                            |        |                                |
| Movement                   | EBT    | EBR                    | WBL    | WBT                        | NBL    | NBR                            |
| Lane Configurations        | ↑      | ↗                      | ↖      | ↑                          | ↘      |                                |
| Traffic Vol, veh/h         | 516    | 77                     | 82     | 1039                       | 90     | 72                             |
| Future Vol, veh/h          | 516    | 77                     | 82     | 1039                       | 90     | 72                             |
| Conflicting Peds, #/hr     | 0      | 0                      | 0      | 0                          | 0      | 0                              |
| Sign Control               | Free   | Free                   | Free   | Free                       | Stop   | Stop                           |
| RT Channelized             | -      | None                   | -      | None                       | -      | None                           |
| Storage Length             | -      | 200                    | 150    | -                          | 0      | -                              |
| Veh in Median Storage, #   | 0      | -                      | -      | 0                          | 0      | -                              |
| Grade, %                   | 0      | -                      | -      | 0                          | 0      | -                              |
| Peak Hour Factor           | 83     | 83                     | 83     | 83                         | 83     | 83                             |
| Heavy Vehicles, %          | 4      | 3                      | 3      | 2                          | 9      | 10                             |
| Mvmt Flow                  | 622    | 93                     | 99     | 1252                       | 108    | 87                             |
|                            |        |                        |        |                            |        |                                |
| Major/Minor                | Major1 |                        | Major2 |                            | Minor1 |                                |
| Conflicting Flow All       | 0      | 0                      | 715    | 0                          | 2072   | 622                            |
| Stage 1                    | -      | -                      | -      | -                          | 622    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 1450   | -                              |
| Critical Hdwy              | -      | -                      | 4.13   | -                          | 6.49   | 6.3                            |
| Critical Hdwy Stg 1        | -      | -                      | -      | -                          | 5.49   | -                              |
| Critical Hdwy Stg 2        | -      | -                      | -      | -                          | 5.49   | -                              |
| Follow-up Hdwy             | -      | -                      | 2.227  | -                          | 3.581  | 3.39                           |
| Pot Cap-1 Maneuver         | -      | -                      | 881    | -                          | ~ 57   | 472                            |
| Stage 1                    | -      | -                      | -      | -                          | 522    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 208    | -                              |
| Platoon blocked, %         | -      | -                      | -      | -                          | -      | -                              |
| Mov Cap-1 Maneuver         | -      | -                      | 881    | -                          | ~ 51   | 472                            |
| Mov Cap-2 Maneuver         | -      | -                      | -      | -                          | ~ 51   | -                              |
| Stage 1                    | -      | -                      | -      | -                          | 522    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 185    | -                              |
|                            |        |                        |        |                            |        |                                |
| Approach                   | EB     |                        | WB     |                            | NB     |                                |
| HCM Control Delay, s       | 0      |                        | 0.7    |                            | \$ 711 |                                |
| HCM LOS                    | F      |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Minor Lane/Major Mvmt      | NBLn1  | EBT                    | EBR    | WBL                        | WBT    |                                |
| Capacity (veh/h)           | 84     | -                      | -      | 881                        | -      |                                |
| HCM Lane V/C Ratio         | 2.324  | -                      | -      | 0.112                      | -      |                                |
| HCM Control Delay (s)      | \$ 711 | -                      | -      | 9.6                        | -      |                                |
| HCM Lane LOS               | F      | -                      | -      | A                          | -      |                                |
| HCM 95th %tile Q(veh)      | 18     | -                      | -      | 0.4                        | -      |                                |
| Notes                      |        |                        |        |                            |        |                                |
| ~: Volume exceeds capacity |        | \$: Delay exceeds 300s |        | +: Computation Not Defined |        | *: All major volume in platoon |

# HCM 6th Signalized Intersection Summary

## 4: Driveway #1 & Old Cornelia Highway

2025 - Traffic Signal  
AM Peak Hour

|                              | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|------------------------------|------|------|------|------|------|------|
| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations          | ↑    | ↗    | ↘    | ↑    | ↘    | ↗    |
| Traffic Volume (veh/h)       | 518  | 70   | 62   | 911  | 210  | 185  |
| Future Volume (veh/h)        | 518  | 70   | 62   | 911  | 210  | 185  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 563  | 0    | 67   | 990  | 228  | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1165 |      | 568  | 1363 | 280  |      |
| Arrive On Green              | 0.62 | 0.00 | 0.05 | 0.73 | 0.16 | 0.00 |
| Sat Flow, veh/h              | 1870 | 1585 | 1781 | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 563  | 0    | 67   | 990  | 228  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 1585 | 1781 | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 12.8 | 0.0  | 0.9  | 24.1 | 9.8  | 0.0  |
| Cycle Q Clear(g_c), s        | 12.8 | 0.0  | 0.9  | 24.1 | 9.8  | 0.0  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1165 |      | 568  | 1363 | 280  |      |
| V/C Ratio(X)                 | 0.48 |      | 0.12 | 0.73 | 0.81 |      |
| Avail Cap(c_a), veh/h        | 1513 |      | 619  | 1764 | 598  |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh     | 8.0  | 0.0  | 5.3  | 6.2  | 32.2 | 0.0  |
| Incr Delay (d2), s/veh       | 0.3  | 0.0  | 0.1  | 1.1  | 5.7  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 7.0  | 0.0  | 0.4  | 9.3  | 8.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 8.3  | 0.0  | 5.4  | 7.3  | 37.8 | 0.0  |
| LnGrp LOS                    | A    |      | A    | A    | D    |      |
| Approach Vol, veh/h          | 563  | A    |      | 1057 | 228  | A    |
| Approach Delay, s/veh        | 8.3  |      |      | 7.1  | 37.8 |      |
| Approach LOS                 | A    |      |      | A    | D    |      |
| Timer - Assigned Phs         | 2    |      | 5    |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     | 62.1 |      | 8.4  |      | 53.7 | 16.9 |
| Change Period (Y+Rc), s      | 4.5  |      | 4.5  |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s  | 74.5 |      | 6.1  |      | 63.9 | 26.5 |
| Max Q Clear Time (g_c+I1), s | 26.1 |      | 2.9  |      | 14.8 | 11.8 |
| Green Ext Time (p_c), s      | 31.5 |      | 0.0  |      | 13.7 | 0.7  |
| Intersection Summary         |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 11.3 |      |      |      |
| HCM 6th LOS                  |      |      | B    |      |      |      |

| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.3                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 1144                                                                              | 15   | 0    | 666                                                                               | 8                                                                                 | 0    |
| Future Vol, veh/h        | 1144                                                                              | 15   | 0    | 666                                                                               | 8                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                | 90   |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2    | 1                                                                                 | 14                                                                                | 2    |
| Mvmt Flow                | 1271                                                                              | 17   | 0    | 740                                                                               | 9                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1288   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 538    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 538    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 76.6 |
| HCM LOS              |    |    | F    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 59    | -   | -   | 538 | -   |
| HCM Lane V/C Ratio    | 0.151 | -   | -   | -   | -   |
| HCM Control Delay (s) | 76.6  | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.5   | -   | -   | 0   | -   |

| Intersection             |        |        |      |        |      |      |
|--------------------------|--------|--------|------|--------|------|------|
| Int Delay, s/veh         | 5.4    |        |      |        |      |      |
| Movement                 | EBT    | EBR    | WBL  | WBT    | NBL  | NBR  |
| Lane Configurations      | ↑      | ↗      | ↖    | ↑      | ↘    |      |
| Traffic Vol, veh/h       | 1219   | 25     | 27   | 580    | 31   | 52   |
| Future Vol, veh/h        | 1219   | 25     | 27   | 580    | 31   | 52   |
| Conflicting Peds, #/hr   | 0      | 0      | 0    | 0      | 0    | 0    |
| Sign Control             | Free   | Free   | Free | Free   | Stop | Stop |
| RT Channelized           | -      | None   | -    | None   | -    | None |
| Storage Length           | -      | 200    | 150  | -      | 0    | -    |
| Veh in Median Storage, # | 0      | -      | -    | 0      | 0    | -    |
| Grade, %                 | 0      | -      | -    | 0      | 0    | -    |
| Peak Hour Factor         | 92     | 92     | 92   | 92     | 92   | 92   |
| Heavy Vehicles, %        | 9      | 0      | 0    | 2      | 0    | 0    |
| Mvmt Flow                | 1325   | 27     | 29   | 630    | 34   | 57   |
|                          |        |        |      |        |      |      |
| Major/Minor              | Major1 | Major2 |      | Minor1 |      |      |
| Conflicting Flow All     | 0      | 0      | 1352 | 0      | 2013 | 1325 |
| Stage 1                  | -      | -      | -    | -      | 1325 | -    |
| Stage 2                  | -      | -      | -    | -      | 688  | -    |
| Critical Hdwy            | -      | -      | 4.1  | -      | 6.4  | 6.2  |
| Critical Hdwy Stg 1      | -      | -      | -    | -      | 5.4  | -    |
| Critical Hdwy Stg 2      | -      | -      | -    | -      | 5.4  | -    |
| Follow-up Hdwy           | -      | -      | 2.2  | -      | 3.5  | 3.3  |
| Pot Cap-1 Maneuver       | -      | -      | 516  | -      | 65   | 192  |
| Stage 1                  | -      | -      | -    | -      | 251  | -    |
| Stage 2                  | -      | -      | -    | -      | 503  | -    |
| Platoon blocked, %       | -      | -      |      | -      |      |      |
| Mov Cap-1 Maneuver       | -      | -      | 516  | -      | 61   | 192  |
| Mov Cap-2 Maneuver       | -      | -      | -    | -      | 61   | -    |
| Stage 1                  | -      | -      | -    | -      | 251  | -    |
| Stage 2                  | -      | -      | -    | -      | 475  | -    |
|                          |        |        |      |        |      |      |
|                          |        |        |      |        |      |      |
| Approach                 | EB     | WB     |      | NB     |      |      |
| HCM Control Delay, s     | 0      | 0.6    |      | 121.7  |      |      |
| HCM LOS                  | F      |        |      |        |      |      |
|                          |        |        |      |        |      |      |
|                          |        |        |      |        |      |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT    | EBR  | WBL    | WBT  |      |
| Capacity (veh/h)         | 107    | -      | -    | 516    | -    |      |
| HCM Lane V/C Ratio       | 0.843  | -      | -    | 0.057  | -    |      |
| HCM Control Delay (s)    | 121.7  | -      | -    | 12.4   | -    |      |
| HCM Lane LOS             | F      | -      | -    | B      | -    |      |
| HCM 95th %tile Q(veh)    | 4.9    | -      | -    | 0.2    | -    |      |

# HCM 6th Signalized Intersection Summary

## 4: Driveway #1 & Old Cornelia Highway

2025 - Traffic Signal  
PM Peak Hour

|                              | →    | ↘     | ↙    | ←    | ↖    | ↗    |
|------------------------------|------|-------|------|------|------|------|
| Movement                     | EBT  | EBR   | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations          | ↑    | ↑     | ↑    | ↑    | ↑    | ↑    |
| Traffic Volume (veh/h)       | 1035 | 236   | 208  | 466  | 141  | 124  |
| Future Volume (veh/h)        | 1035 | 236   | 208  | 466  | 141  | 124  |
| Initial Q (Qb), veh          | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00  | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |       |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 1125 | 0     | 226  | 507  | 153  | 0    |
| Peak Hour Factor             | 0.92 | 0.92  | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2     | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1367 |       | 315  | 1534 | 184  |      |
| Arrive On Green              | 0.73 | 0.00  | 0.05 | 0.82 | 0.10 | 0.00 |
| Sat Flow, veh/h              | 1870 | 1585  | 1781 | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 1125 | 0     | 226  | 507  | 153  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 1585  | 1781 | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 47.9 | 0.0   | 3.4  | 7.9  | 9.9  | 0.0  |
| Cycle Q Clear(g_c), s        | 47.9 | 0.0   | 3.4  | 7.9  | 9.9  | 0.0  |
| Prop In Lane                 |      | 1.00  | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1367 |       | 315  | 1534 | 184  |      |
| V/C Ratio(X)                 | 0.82 |       | 0.72 | 0.33 | 0.83 |      |
| Avail Cap(c_a), veh/h        | 1533 |       | 549  | 1946 | 280  |      |
| HCM Platoon Ratio            | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00  | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh     | 10.7 | 0.0   | 21.9 | 2.6  | 51.8 | 0.0  |
| Incr Delay (d2), s/veh       | 3.4  | 0.0   | 3.1  | 0.1  | 12.1 | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 22.7 | 0.0   | 8.0  | 3.0  | 8.7  | 0.0  |
| Unsig. Movement Delay, s/veh |      |       |      |      |      |      |
| LnGrp Delay(d),s/veh         | 14.1 | 0.0   | 25.0 | 2.7  | 63.9 | 0.0  |
| LnGrp LOS                    | B    |       | C    | A    | E    |      |
| Approach Vol, veh/h          | 1125 | A     |      | 733  | 153  | A    |
| Approach Delay, s/veh        | 14.1 |       |      | 9.6  | 63.9 |      |
| Approach LOS                 | B    |       |      | A    | E    |      |
| Timer - Assigned Phs         |      | 2     |      |      | 5    | 6    |
| Phs Duration (G+Y+Rc), s     |      | 101.1 |      |      | 10.6 | 90.5 |
| Change Period (Y+Rc), s      |      | 4.5   |      |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s  |      | 122.5 |      |      | 21.5 | 96.5 |
| Max Q Clear Time (g_c+I1), s |      | 9.9   |      |      | 5.4  | 49.9 |
| Green Ext Time (p_c), s      |      | 13.1  |      |      | 0.6  | 36.2 |
|                              |      |       |      |      |      | 0.2  |
| Intersection Summary         |      |       |      |      |      |      |
| HCM 6th Ctrl Delay           |      |       | 16.3 |      |      |      |
| HCM 6th LOS                  |      |       | B    |      |      |      |

### Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.



| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0.7                                                                               |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 779                                                                               | 11   | 1      | 1043                                                                              | 16                                                                                | 3     |
| Future Vol, veh/h        | 779                                                                               | 11   | 1      | 1043                                                                              | 16                                                                                | 3     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 7                                                                                 | 11   | 0      | 2                                                                                 | 0                                                                                 | 33    |
| Mvmt Flow                | 847                                                                               | 12   | 1      | 1134                                                                              | 17                                                                                | 3     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 859    | 0                                                                                 | 1989                                                                              | 853   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 853                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1136                                                                              | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.1    | -                                                                                 | 6.4                                                                               | 6.53  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.4                                                                               | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.4                                                                               | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.2    | -                                                                                 | 3.5                                                                               | 3.597 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 791    | -                                                                                 | 68                                                                                | 317   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 421                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 309                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 791    | -                                                                                 | 68                                                                                | 317   |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 68                                                                                | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 421                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 308                                                                               | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 67                                                                                |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | F                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 78                                                                                | -    | -      | 791                                                                               | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.265                                                                             | -    | -      | 0.001                                                                             | -                                                                                 |       |
| HCM Control Delay (s)    | 67                                                                                | -    | -      | 9.6                                                                               | 0                                                                                 |       |
| HCM Lane LOS             | F                                                                                 | -    | -      | A                                                                                 | A                                                                                 |       |
| HCM 95th %tile Q(veh)    | 1                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection                                                                                                         |           |      |        |       |           |      |
|----------------------------------------------------------------------------------------------------------------------|-----------|------|--------|-------|-----------|------|
| Int Delay, s/veh                                                                                                     | 111       |      |        |       |           |      |
| Movement                                                                                                             | EBT       | EBR  | WBL    | WBT   | NBL       | NBR  |
| Lane Configurations                                                                                                  | ↑         | ↗    | ↖      | ↑     | ↘         |      |
| Traffic Vol, veh/h                                                                                                   | 567       | 83   | 94     | 1150  | 97        | 80   |
| Future Vol, veh/h                                                                                                    | 567       | 83   | 94     | 1150  | 97        | 80   |
| Conflicting Peds, #/hr                                                                                               | 0         | 0    | 0      | 0     | 0         | 0    |
| Sign Control                                                                                                         | Free      | Free | Free   | Free  | Stop      | Stop |
| RT Channelized                                                                                                       | -         | None | -      | None  | -         | None |
| Storage Length                                                                                                       | -         | 200  | 150    | -     | 0         | -    |
| Veh in Median Storage, #                                                                                             | 0         | -    | -      | 0     | 0         | -    |
| Grade, %                                                                                                             | 0         | -    | -      | 0     | 0         | -    |
| Peak Hour Factor                                                                                                     | 83        | 83   | 83     | 83    | 83        | 83   |
| Heavy Vehicles, %                                                                                                    | 4         | 3    | 3      | 2     | 9         | 10   |
| Mvmt Flow                                                                                                            | 683       | 100  | 113    | 1386  | 117       | 96   |
|                                                                                                                      |           |      |        |       |           |      |
| Major/Minor                                                                                                          | Major1    |      | Major2 |       | Minor1    |      |
| Conflicting Flow All                                                                                                 | 0         | 0    | 783    | 0     | 2295      | 683  |
| Stage 1                                                                                                              | -         | -    | -      | -     | 683       | -    |
| Stage 2                                                                                                              | -         | -    | -      | -     | 1612      | -    |
| Critical Hdwy                                                                                                        | -         | -    | 4.13   | -     | 6.49      | 6.3  |
| Critical Hdwy Stg 1                                                                                                  | -         | -    | -      | -     | 5.49      | -    |
| Critical Hdwy Stg 2                                                                                                  | -         | -    | -      | -     | 5.49      | -    |
| Follow-up Hdwy                                                                                                       | -         | -    | 2.227  | -     | 3.581     | 3.39 |
| Pot Cap-1 Maneuver                                                                                                   | -         | -    | 831    | -     | ~ 41      | 436  |
| Stage 1                                                                                                              | -         | -    | -      | -     | 489       | -    |
| Stage 2                                                                                                              | -         | -    | -      | -     | 173       | -    |
| Platoon blocked, %                                                                                                   | -         | -    |        | -     |           |      |
| Mov Cap-1 Maneuver                                                                                                   | -         | -    | 831    | -     | ~ 35      | 436  |
| Mov Cap-2 Maneuver                                                                                                   | -         | -    | -      | -     | ~ 35      | -    |
| Stage 1                                                                                                              | -         | -    | -      | -     | 489       | -    |
| Stage 2                                                                                                              | -         | -    | -      | -     | 149       | -    |
|                                                                                                                      |           |      |        |       |           |      |
| Approach                                                                                                             | EB        |      | WB     |       | NB        |      |
| HCM Control Delay, s                                                                                                 | 0         |      | 0.8    |       | \$ 1292.6 |      |
| HCM LOS                                                                                                              | F         |      |        |       |           |      |
|                                                                                                                      |           |      |        |       |           |      |
| Minor Lane/Major Mvmt                                                                                                | NBLn1     | EBT  | EBR    | WBL   | WBT       |      |
| Capacity (veh/h)                                                                                                     | 60        | -    | -      | 831   | -         |      |
| HCM Lane V/C Ratio                                                                                                   | 3.554     | -    | -      | 0.136 | -         |      |
| HCM Control Delay (s)                                                                                                | \$ 1292.6 | -    | -      | 10    | -         |      |
| HCM Lane LOS                                                                                                         | F         | -    | -      | B     | -         |      |
| HCM 95th %tile Q(veh)                                                                                                | 22.7      | -    | -      | 0.5   | -         |      |
| Notes                                                                                                                |           |      |        |       |           |      |
| ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    *: All major volume in platoon |           |      |        |       |           |      |

# HCM 6th Signalized Intersection Summary

## 4: Driveway #1 & Old Cornelia Highway

2030 - Traffic Signal  
AM Peak Hour

|                              | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|------------------------------|------|------|------|------|------|------|
| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations          | ↑    | ↗    | ↘    | ↑    | ↘    | ↗    |
| Traffic Volume (veh/h)       | 557  | 90   | 80   | 979  | 265  | 233  |
| Future Volume (veh/h)        | 557  | 90   | 80   | 979  | 265  | 233  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 605  | 0    | 87   | 1064 | 288  | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1153 |      | 519  | 1337 | 333  |      |
| Arrive On Green              | 0.62 | 0.00 | 0.05 | 0.71 | 0.19 | 0.00 |
| Sat Flow, veh/h              | 1870 | 1585 | 1781 | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 605  | 0    | 87   | 1064 | 288  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 1585 | 1781 | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 16.7 | 0.0  | 1.5  | 34.4 | 14.3 | 0.0  |
| Cycle Q Clear(g_c), s        | 16.7 | 0.0  | 1.5  | 34.4 | 14.3 | 0.0  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1153 |      | 519  | 1337 | 333  |      |
| V/C Ratio(X)                 | 0.52 |      | 0.17 | 0.80 | 0.87 |      |
| Avail Cap(c_a), veh/h        | 1308 |      | 551  | 1525 | 517  |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh     | 9.9  | 0.0  | 6.8  | 8.6  | 36.0 | 0.0  |
| Incr Delay (d2), s/veh       | 0.4  | 0.0  | 0.2  | 2.7  | 9.2  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 9.5  | 0.0  | 0.8  | 15.3 | 11.3 | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 10.3 | 0.0  | 7.0  | 11.3 | 45.3 | 0.0  |
| LnGrp LOS                    | B    |      | A    | B    | D    |      |
| Approach Vol, veh/h          | 605  | A    |      | 1151 | 288  | A    |
| Approach Delay, s/veh        | 10.3 |      |      | 11.0 | 45.3 |      |
| Approach LOS                 | B    |      |      | B    | D    |      |
| Timer - Assigned Phs         | 2    |      | 5    |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     | 69.8 |      | 9.0  |      | 60.8 | 21.6 |
| Change Period (Y+Rc), s      | 4.5  |      | 4.5  |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s  | 74.5 |      | 6.1  |      | 63.9 | 26.5 |
| Max Q Clear Time (g_c+I1), s | 36.4 |      | 3.5  |      | 18.7 | 16.3 |
| Green Ext Time (p_c), s      | 28.9 |      | 0.0  |      | 14.8 | 0.7  |
| Intersection Summary         |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           | 15.6 |      |      |      |      |      |
| HCM 6th LOS                  | B    |      |      |      |      |      |

| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.5                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 1251                                                                              | 16   | 0    | 745                                                                               | 9                                                                                 | 0    |
| Future Vol, veh/h        | 1251                                                                              | 16   | 0    | 745                                                                               | 9                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                | 90   |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2    | 1                                                                                 | 14                                                                                | 2    |
| Mvmt Flow                | 1390                                                                              | 18   | 0    | 828                                                                               | 10                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1408   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 485    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 485    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB    |
|----------------------|----|----|-------|
| HCM Control Delay, s | 0  | 0  | 109.4 |
| HCM LOS              |    |    | F     |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 44    | -   | -   | 485 | -   |
| HCM Lane V/C Ratio    | 0.227 | -   | -   | -   | -   |
| HCM Control Delay (s) | 109.4 | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.8   | -   | -   | 0   | -   |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 11.9   |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑      | ↗    | ↘      | ↑     | ↘↗     |      |
| Traffic Vol, veh/h       | 1339   | 27   | 33     | 644   | 33     | 62   |
| Future Vol, veh/h        | 1339   | 27   | 33     | 644   | 33     | 62   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1455   | 29   | 36     | 700   | 36     | 67   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1484   | 0     | 2227   | 1455 |
| Stage 1                  | -      | -    | -      | -     | 1455   | -    |
| Stage 2                  | -      | -    | -      | -     | 772    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.4    | 6.2  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.4    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.4    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 459    | -     | 48     | 161  |
| Stage 1                  | -      | -    | -      | -     | 217    | -    |
| Stage 2                  | -      | -    | -      | -     | 459    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 459    | -     | 44     | 161  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 44     | -    |
| Stage 1                  | -      | -    | -      | -     | 217    | -    |
| Stage 2                  | -      | -    | -      | -     | 423    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.7    |       | 261.8  |      |
| HCM LOS                  | F      |      |        |       |        |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 84     | -    | -      | 459   | -      |      |
| HCM Lane V/C Ratio       | 1.229  | -    | -      | 0.078 | -      |      |
| HCM Control Delay (s)    | 261.8  | -    | -      | 13.5  | -      |      |
| HCM Lane LOS             | F      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 7.5    | -    | -      | 0.3   | -      |      |



# HCM 6th Signalized Intersection Summary

## 4: Driveway #1 & Old Cornelia Highway

2030 - Traffic Signal  
PM Peak Hour

|                                                                                                               | →    | ↘     | ↙    | ←    | ↖    | ↗     |
|---------------------------------------------------------------------------------------------------------------|------|-------|------|------|------|-------|
| Movement                                                                                                      | EBT  | EBR   | WBL  | WBT  | NBL  | NBR   |
| Lane Configurations                                                                                           | ↑    | ↑     | ↑    | ↑    | ↑    | ↑     |
| Traffic Volume (veh/h)                                                                                        | 1113 | 288   | 253  | 501  | 176  | 154   |
| Future Volume (veh/h)                                                                                         | 1113 | 288   | 253  | 501  | 176  | 154   |
| Initial Q (Qb), veh                                                                                           | 0    | 0     | 0    | 0    | 0    | 0     |
| Ped-Bike Adj(A_pbT)                                                                                           |      | 1.00  | 1.00 |      | 1.00 | 1.00  |
| Parking Bus, Adj                                                                                              | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  |
| Work Zone On Approach                                                                                         | No   |       |      | No   | No   |       |
| Adj Sat Flow, veh/h/ln                                                                                        | 1870 | 1870  | 1870 | 1870 | 1870 | 1870  |
| Adj Flow Rate, veh/h                                                                                          | 1210 | 0     | 275  | 545  | 191  | 0     |
| Peak Hour Factor                                                                                              | 0.92 | 0.92  | 0.92 | 0.92 | 0.92 | 0.92  |
| Percent Heavy Veh, %                                                                                          | 2    | 2     | 2    | 2    | 2    | 2     |
| Cap, veh/h                                                                                                    | 1225 |       | 297  | 1532 | 213  |       |
| Arrive On Green                                                                                               | 0.66 | 0.00  | 0.13 | 0.82 | 0.12 | 0.00  |
| Sat Flow, veh/h                                                                                               | 1870 | 1585  | 1781 | 1870 | 1781 | 1585  |
| Grp Volume(v), veh/h                                                                                          | 1210 | 0     | 275  | 545  | 191  | 0     |
| Grp Sat Flow(s),veh/h/ln                                                                                      | 1870 | 1585  | 1781 | 1870 | 1781 | 1585  |
| Q Serve(g_s), s                                                                                               | 93.1 | 0.0   | 17.5 | 10.9 | 15.6 | 0.0   |
| Cycle Q Clear(g_c), s                                                                                         | 93.1 | 0.0   | 17.5 | 10.9 | 15.6 | 0.0   |
| Prop In Lane                                                                                                  |      | 1.00  | 1.00 |      | 1.00 | 1.00  |
| Lane Grp Cap(c), veh/h                                                                                        | 1225 |       | 297  | 1532 | 213  |       |
| V/C Ratio(X)                                                                                                  | 0.99 |       | 0.92 | 0.36 | 0.90 |       |
| Avail Cap(c_a), veh/h                                                                                         | 1226 |       | 320  | 1556 | 224  |       |
| HCM Platoon Ratio                                                                                             | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  |
| Upstream Filter(I)                                                                                            | 1.00 | 0.00  | 1.00 | 1.00 | 1.00 | 0.00  |
| Uniform Delay (d), s/veh                                                                                      | 24.8 | 0.0   | 54.6 | 3.4  | 63.9 | 0.0   |
| Incr Delay (d2), s/veh                                                                                        | 22.6 | 0.0   | 30.5 | 0.1  | 32.9 | 0.0   |
| Initial Q Delay(d3),s/veh                                                                                     | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   |
| %ile BackOfQ(95%),veh/ln                                                                                      | 54.7 | 0.0   | 18.2 | 5.4  | 14.0 | 0.0   |
| Unsig. Movement Delay, s/veh                                                                                  |      |       |      |      |      |       |
| LnGrp Delay(d),s/veh                                                                                          | 47.5 | 0.0   | 85.1 | 3.5  | 96.8 | 0.0   |
| LnGrp LOS                                                                                                     | D    |       | F    | A    | F    |       |
| Approach Vol, veh/h                                                                                           | 1210 | A     |      | 820  | 191  | A     |
| Approach Delay, s/veh                                                                                         | 47.5 |       |      | 30.9 | 96.8 |       |
| Approach LOS                                                                                                  | D    |       |      | C    | F    |       |
| Timer - Assigned Phs                                                                                          |      | 2     |      |      | 5    | 6     |
| Phs Duration (G+Y+Rc), s                                                                                      |      | 125.1 |      |      | 24.2 | 101.0 |
| Change Period (Y+Rc), s                                                                                       |      | 4.5   |      |      | 4.5  | 4.5   |
| Max Green Setting (Gmax), s                                                                                   |      | 122.5 |      |      | 21.5 | 96.5  |
| Max Q Clear Time (g_c+I1), s                                                                                  |      | 12.9  |      |      | 19.5 | 95.1  |
| Green Ext Time (p_c), s                                                                                       |      | 14.7  |      |      | 0.2  | 1.4   |
|                                                                                                               |      |       |      |      |      | 0.1   |
| Intersection Summary                                                                                          |      |       |      |      |      |       |
| HCM 6th Ctrl Delay                                                                                            |      |       | 45.6 |      |      |       |
| HCM 6th LOS                                                                                                   |      |       | D    |      |      |       |
| Notes                                                                                                         |      |       |      |      |      |       |
| Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay. |      |       |      |      |      |       |

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 1                                                                                 |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 879                                                                               | 12   | 1      | 1137                                                                              | 17                                                                                | 4     |
| Future Vol, veh/h        | 879                                                                               | 12   | 1      | 1137                                                                              | 17                                                                                | 4     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 7                                                                                 | 11   | 0      | 2                                                                                 | 0                                                                                 | 33    |
| Mvmt Flow                | 955                                                                               | 13   | 1      | 1236                                                                              | 18                                                                                | 4     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 968    | 0                                                                                 | 2200                                                                              | 962   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 962                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1238                                                                              | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.1    | -                                                                                 | 6.4                                                                               | 6.53  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.4                                                                               | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.4                                                                               | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.2    | -                                                                                 | 3.5                                                                               | 3.597 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 720    | -                                                                                 | 50                                                                                | 272   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 374                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 276                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 720    | -                                                                                 | 50                                                                                | 272   |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 50                                                                                | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 374                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 275                                                                               | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 100.3                                                                             |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | F                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 59                                                                                | -    | -      | 720                                                                               | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.387                                                                             | -    | -      | 0.002                                                                             | -                                                                                 |       |
| HCM Control Delay (s)    | 100.3                                                                             | -    | -      | 10                                                                                | 0                                                                                 |       |
| HCM Lane LOS             | F                                                                                 | -    | -      | B                                                                                 | A                                                                                 |       |
| HCM 95th %tile Q(veh)    | 1.4                                                                               | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection               |           |                        |        |                            |       |                                |
|----------------------------|-----------|------------------------|--------|----------------------------|-------|--------------------------------|
| Int Delay, s/veh           | 195.9     |                        |        |                            |       |                                |
| Movement                   | EBT       | EBR                    | WBL    | WBT                        | NBL   | NBR                            |
| Lane Configurations        | ↑         | ↗                      | ↘      | ↑                          | ↘↗    |                                |
| Traffic Vol, veh/h         | 623       | 90                     | 109    | 1277                       | 105   | 89                             |
| Future Vol, veh/h          | 623       | 90                     | 109    | 1277                       | 105   | 89                             |
| Conflicting Peds, #/hr     | 0         | 0                      | 0      | 0                          | 0     | 0                              |
| Sign Control               | Free      | Free                   | Free   | Free                       | Stop  | Stop                           |
| RT Channelized             | -         | None                   | -      | None                       | -     | None                           |
| Storage Length             | -         | 200                    | 150    | -                          | 0     | -                              |
| Veh in Median Storage, #   | 0         | -                      | -      | 0                          | 0     | -                              |
| Grade, %                   | 0         | -                      | -      | 0                          | 0     | -                              |
| Peak Hour Factor           | 83        | 83                     | 83     | 83                         | 83    | 83                             |
| Heavy Vehicles, %          | 4         | 3                      | 3      | 2                          | 9     | 10                             |
| Mvmt Flow                  | 751       | 108                    | 131    | 1539                       | 127   | 107                            |
|                            |           |                        |        |                            |       |                                |
| Major/Minor                | Major1    | Major2                 | Minor1 |                            |       |                                |
| Conflicting Flow All       | 0         | 0                      | 859    | 0                          | 2552  | 751                            |
| Stage 1                    | -         | -                      | -      | -                          | 751   | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 1801  | -                              |
| Critical Hdwy              | -         | -                      | 4.13   | -                          | 6.49  | 6.3                            |
| Critical Hdwy Stg 1        | -         | -                      | -      | -                          | 5.49  | -                              |
| Critical Hdwy Stg 2        | -         | -                      | -      | -                          | 5.49  | -                              |
| Follow-up Hdwy             | -         | -                      | 2.227  | -                          | 3.581 | 3.39                           |
| Pot Cap-1 Maneuver         | -         | -                      | 778    | -                          | ~ 28  | 398                            |
| Stage 1                    | -         | -                      | -      | -                          | 454   | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 139   | -                              |
| Platoon blocked, %         | -         | -                      | -      | -                          | -     | -                              |
| Mov Cap-1 Maneuver         | -         | -                      | 778    | -                          | ~ 23  | 398                            |
| Mov Cap-2 Maneuver         | -         | -                      | -      | -                          | ~ 23  | -                              |
| Stage 1                    | -         | -                      | -      | -                          | 454   | -                              |
| Stage 2                    | -         | -                      | -      | -                          | ~ 116 | -                              |
|                            |           |                        |        |                            |       |                                |
| Approach                   | EB        | WB                     |        | NB                         |       |                                |
| HCM Control Delay, s       | 0         | 0.8                    |        | \$ 2309.8                  |       |                                |
| HCM LOS                    | F         |                        |        |                            |       |                                |
|                            |           |                        |        |                            |       |                                |
| Minor Lane/Major Mvmt      | NBLn1     | EBT                    | EBR    | WBL                        | WBT   |                                |
| Capacity (veh/h)           | 41        | -                      | -      | 778                        | -     |                                |
| HCM Lane V/C Ratio         | 5.701     | -                      | -      | 0.169                      | -     |                                |
| HCM Control Delay (s)      | \$ 2309.8 | -                      | -      | 10.6                       | -     |                                |
| HCM Lane LOS               | F         | -                      | -      | B                          | -     |                                |
| HCM 95th %tile Q(veh)      | 27.3      | -                      | -      | 0.6                        | -     |                                |
| Notes                      |           |                        |        |                            |       |                                |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |        | +: Computation Not Defined |       | *: All major volume in platoon |

# HCM 6th Signalized Intersection Summary

## 4: Driveway #1 & Old Cornelia Highway

2035 - Traffic Signal  
AM Peak Hour

|                              | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|------------------------------|------|------|------|------|------|------|
| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations          | ↑    | ↗    | ↘    | ↑    | ↘    | ↗    |
| Traffic Volume (veh/h)       | 601  | 111  | 98   | 1156 | 329  | 290  |
| Future Volume (veh/h)        | 601  | 111  | 98   | 1156 | 329  | 290  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 653  | 0    | 107  | 1257 | 358  | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1139 |      | 459  | 1302 | 391  |      |
| Arrive On Green              | 0.61 | 0.00 | 0.04 | 0.70 | 0.22 | 0.00 |
| Sat Flow, veh/h              | 1870 | 1585 | 1781 | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 653  | 0    | 107  | 1257 | 358  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 1585 | 1781 | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 22.4 | 0.0  | 2.2  | 66.5 | 20.9 | 0.0  |
| Cycle Q Clear(g_c), s        | 22.4 | 0.0  | 2.2  | 66.5 | 20.9 | 0.0  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1139 |      | 459  | 1302 | 391  |      |
| V/C Ratio(X)                 | 0.57 |      | 0.23 | 0.97 | 0.92 |      |
| Avail Cap(c_a), veh/h        | 1139 |      | 481  | 1306 | 442  |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh     | 12.5 | 0.0  | 9.3  | 15.0 | 40.7 | 0.0  |
| Incr Delay (d2), s/veh       | 0.7  | 0.0  | 0.3  | 17.2 | 22.1 | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 13.0 | 0.0  | 1.3  | 35.7 | 17.0 | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 13.2 | 0.0  | 9.6  | 32.3 | 62.8 | 0.0  |
| LnGrp LOS                    | B    |      | A    | C    | E    |      |
| Approach Vol, veh/h          | 653  | A    |      | 1364 | 358  | A    |
| Approach Delay, s/veh        | 13.2 |      |      | 30.5 | 62.8 |      |
| Approach LOS                 | B    |      |      | C    | E    |      |
| Timer - Assigned Phs         | 2    |      | 5    |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     | 78.8 |      | 9.3  |      | 69.5 | 27.9 |
| Change Period (Y+Rc), s      | 4.5  |      | 4.5  |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s  | 74.5 |      | 6.1  |      | 63.9 | 26.5 |
| Max Q Clear Time (g_c+I1), s | 68.5 |      | 4.2  |      | 24.4 | 22.9 |
| Green Ext Time (p_c), s      | 5.8  |      | 0.0  |      | 15.6 | 0.5  |
| Intersection Summary         |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 30.6 |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0.8                                                                               |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 1375                                                                              | 17   | 0      | 851                                                                               | 10                                                                                | 0     |
| Future Vol, veh/h        | 1375                                                                              | 17   | 0      | 851                                                                               | 10                                                                                | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 90                                                                                | 90   | 90     | 90                                                                                | 90                                                                                | 90    |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2      | 1                                                                                 | 14                                                                                | 2     |
| Mvmt Flow                | 1528                                                                              | 19   | 0      | 946                                                                               | 11                                                                                | 0     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 1547   | 0                                                                                 | 2484                                                                              | 1538  |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1538                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 946                                                                               | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.54                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.54                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.54                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.626                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 429    | -                                                                                 | 30                                                                                | 142   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 183                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 359                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 429    | -                                                                                 | 30                                                                                | 142   |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 30                                                                                | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 183                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 359                                                                               | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 183.5                                                                             |       |
| HCM LOS                  | F                                                                                 |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 30                                                                                | -    | -      | 429                                                                               | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.37                                                                              | -    | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 183.5                                                                             | -    | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | F                                                                                 | -    | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | 1.2                                                                               | -    | -      | 0                                                                                 | -                                                                                 |       |



| Intersection               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh           | 28.8                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                   | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations        |  |  |  |  |  |  |
| Traffic Vol, veh/h         | 1488                                                                              | 30                                                                                | 41                                                                                | 719                                                                               | 36                                                                                | 76                                                                                |
| Future Vol, veh/h          | 1488                                                                              | 30                                                                                | 41                                                                                | 719                                                                               | 36                                                                                | 76                                                                                |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control               | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop                                                                              | Stop                                                                              |
| RT Channelized             | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length             | -                                                                                 | 200                                                                               | 150                                                                               | -                                                                                 | 0                                                                                 | -                                                                                 |
| Veh in Median Storage, #   | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                   | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor           | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                |
| Heavy Vehicles, %          | 9                                                                                 | 0                                                                                 | 0                                                                                 | 2                                                                                 | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                  | 1617                                                                              | 33                                                                                | 45                                                                                | 782                                                                               | 39                                                                                | 83                                                                                |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor                | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   | Minor1                                                                            |                                                                                   |
| Conflicting Flow All       | 0                                                                                 | 0                                                                                 | 1650                                                                              | 0                                                                                 | 2489                                                                              | 1617                                                                              |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 1617                                                                              | -                                                                                 |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 872                                                                               | -                                                                                 |
| Critical Hdwy              | -                                                                                 | -                                                                                 | 4.1                                                                               | -                                                                                 | 6.4                                                                               | 6.2                                                                               |
| Critical Hdwy Stg 1        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 5.4                                                                               | -                                                                                 |
| Critical Hdwy Stg 2        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 5.4                                                                               | -                                                                                 |
| Follow-up Hdwy             | -                                                                                 | -                                                                                 | 2.2                                                                               | -                                                                                 | 3.5                                                                               | 3.3                                                                               |
| Pot Cap-1 Maneuver         | -                                                                                 | -                                                                                 | 397                                                                               | -                                                                                 | ~ 33                                                                              | 129                                                                               |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 180                                                                               | -                                                                                 |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 412                                                                               | -                                                                                 |
| Platoon blocked, %         | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver         | -                                                                                 | -                                                                                 | 397                                                                               | -                                                                                 | ~ 29                                                                              | 129                                                                               |
| Mov Cap-2 Maneuver         | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | ~ 29                                                                              | -                                                                                 |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 180                                                                               | -                                                                                 |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 365                                                                               | -                                                                                 |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                   | EB                                                                                |                                                                                   | WB                                                                                |                                                                                   | NB                                                                                |                                                                                   |
| HCM Control Delay, s       | 0                                                                                 |                                                                                   | 0.8                                                                               |                                                                                   | \$ 609.3                                                                          |                                                                                   |
| HCM LOS                    | F                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               |                                                                                   |
| Capacity (veh/h)           | 61                                                                                | -                                                                                 | -                                                                                 | 397                                                                               | -                                                                                 |                                                                                   |
| HCM Lane V/C Ratio         | 1.996                                                                             | -                                                                                 | -                                                                                 | 0.112                                                                             | -                                                                                 |                                                                                   |
| HCM Control Delay (s)      | \$ 609.3                                                                          | -                                                                                 | -                                                                                 | 15.2                                                                              | -                                                                                 |                                                                                   |
| HCM Lane LOS               | F                                                                                 | -                                                                                 | -                                                                                 | C                                                                                 | -                                                                                 |                                                                                   |
| HCM 95th %tile Q(veh)      | 11.5                                                                              | -                                                                                 | -                                                                                 | 0.4                                                                               | -                                                                                 |                                                                                   |
| Notes                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s                                                            |                                                                                   | +: Computation Not Defined                                                        |                                                                                   | *: All major volume in platoon                                                    |

# HCM 6th Signalized Intersection Summary

## 4: Driveway #1 & Old Cornelia Highway

2035 - Traffic Signal  
PM Peak Hour

|                                                                                                               | →    | ↘     | ↙     | ←    | ↖     | ↗     |
|---------------------------------------------------------------------------------------------------------------|------|-------|-------|------|-------|-------|
| Movement                                                                                                      | EBT  | EBR   | WBL   | WBT  | NBL   | NBR   |
| Lane Configurations                                                                                           | ↑    | ↑     | ↑     | ↑    | ↑     | ↑     |
| Traffic Volume (veh/h)                                                                                        | 1201 | 363   | 320   | 541  | 218   | 192   |
| Future Volume (veh/h)                                                                                         | 1201 | 363   | 320   | 541  | 218   | 192   |
| Initial Q (Qb), veh                                                                                           | 0    | 0     | 0     | 0    | 0     | 0     |
| Ped-Bike Adj(A_pbT)                                                                                           |      | 1.00  | 1.00  |      | 1.00  | 1.00  |
| Parking Bus, Adj                                                                                              | 1.00 | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  |
| Work Zone On Approach                                                                                         | No   |       |       | No   | No    |       |
| Adj Sat Flow, veh/h/ln                                                                                        | 1870 | 1870  | 1870  | 1870 | 1870  | 1870  |
| Adj Flow Rate, veh/h                                                                                          | 1305 | 0     | 348   | 588  | 237   | 0     |
| Peak Hour Factor                                                                                              | 0.92 | 0.92  | 0.92  | 0.92 | 0.92  | 0.92  |
| Percent Heavy Veh, %                                                                                          | 2    | 2     | 2     | 2    | 2     | 2     |
| Cap, veh/h                                                                                                    | 1203 |       | 303   | 1527 | 220   |       |
| Arrive On Green                                                                                               | 0.64 | 0.00  | 0.14  | 0.82 | 0.12  | 0.00  |
| Sat Flow, veh/h                                                                                               | 1870 | 1585  | 1781  | 1870 | 1781  | 1585  |
| Grp Volume(v), veh/h                                                                                          | 1305 | 0     | 348   | 588  | 237   | 0     |
| Grp Sat Flow(s),veh/h/ln                                                                                      | 1870 | 1585  | 1781  | 1870 | 1781  | 1585  |
| Q Serve(g_s), s                                                                                               | 96.5 | 0.0   | 21.5  | 12.6 | 18.5  | 0.0   |
| Cycle Q Clear(g_c), s                                                                                         | 96.5 | 0.0   | 21.5  | 12.6 | 18.5  | 0.0   |
| Prop In Lane                                                                                                  |      | 1.00  | 1.00  |      | 1.00  | 1.00  |
| Lane Grp Cap(c), veh/h                                                                                        | 1203 |       | 303   | 1527 | 220   |       |
| V/C Ratio(X)                                                                                                  | 1.08 |       | 1.15  | 0.38 | 1.08  |       |
| Avail Cap(c_a), veh/h                                                                                         | 1203 |       | 303   | 1527 | 220   |       |
| HCM Platoon Ratio                                                                                             | 1.00 | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  |
| Upstream Filter(I)                                                                                            | 1.00 | 0.00  | 1.00  | 1.00 | 1.00  | 0.00  |
| Uniform Delay (d), s/veh                                                                                      | 26.8 | 0.0   | 57.8  | 3.7  | 65.8  | 0.0   |
| Incr Delay (d2), s/veh                                                                                        | 52.1 | 0.0   | 97.7  | 0.2  | 83.2  | 0.0   |
| Initial Q Delay(d3),s/veh                                                                                     | 0.0  | 0.0   | 0.0   | 0.0  | 0.0   | 0.0   |
| %ile BackOfQ(95%),veh/ln                                                                                      | 72.8 | 0.0   | 28.1  | 6.4  | 20.2  | 0.0   |
| Unsig. Movement Delay, s/veh                                                                                  |      |       |       |      |       |       |
| LnGrp Delay(d),s/veh                                                                                          | 78.8 | 0.0   | 155.5 | 3.8  | 149.0 | 0.0   |
| LnGrp LOS                                                                                                     | F    |       | F     | A    | F     |       |
| Approach Vol, veh/h                                                                                           | 1305 | A     |       | 936  | 237   | A     |
| Approach Delay, s/veh                                                                                         | 78.8 |       |       | 60.2 | 149.0 |       |
| Approach LOS                                                                                                  | E    |       |       | E    | F     |       |
| Timer - Assigned Phs                                                                                          |      | 2     |       |      | 5     | 6     |
| Phs Duration (G+Y+Rc), s                                                                                      |      | 127.0 |       |      | 26.0  | 101.0 |
| Change Period (Y+Rc), s                                                                                       |      | 4.5   |       |      | 4.5   | 4.5   |
| Max Green Setting (Gmax), s                                                                                   |      | 122.5 |       |      | 21.5  | 96.5  |
| Max Q Clear Time (g_c+I1), s                                                                                  |      | 14.6  |       |      | 23.5  | 98.5  |
| Green Ext Time (p_c), s                                                                                       |      | 16.7  |       |      | 0.0   | 0.0   |
| Intersection Summary                                                                                          |      |       |       |      |       |       |
| HCM 6th Ctrl Delay                                                                                            |      |       | 78.5  |      |       |       |
| HCM 6th LOS                                                                                                   |      |       | E     |      |       |       |
| Notes                                                                                                         |      |       |       |      |       |       |
| Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay. |      |       |       |      |       |       |

| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.8                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 1375                                                                              | 17   | 0    | 851                                                                               | 10                                                                                | 0    |
| Future Vol, veh/h        | 1375                                                                              | 17   | 0    | 851                                                                               | 10                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                | 90   |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2    | 1                                                                                 | 14                                                                                | 2    |
| Mvmt Flow                | 1528                                                                              | 19   | 0    | 946                                                                               | 11                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1547   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 429    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 429    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB    |
|----------------------|----|----|-------|
| HCM Control Delay, s | 0  | 0  | 183.5 |
| HCM LOS              |    |    | F     |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 30    | -   | -   | 429 | -   |
| HCM Lane V/C Ratio    | 0.37  | -   | -   | -   | -   |
| HCM Control Delay (s) | 183.5 | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 1.2   | -   | -   | 0   | -   |

| Intersection               |          |                        |        |                            |          |                                |
|----------------------------|----------|------------------------|--------|----------------------------|----------|--------------------------------|
| Int Delay, s/veh           | 28.8     |                        |        |                            |          |                                |
| Movement                   | EBT      | EBR                    | WBL    | WBT                        | NBL      | NBR                            |
| Lane Configurations        | ↑        | ↗                      | ↖      | ↑                          | ↘        |                                |
| Traffic Vol, veh/h         | 1488     | 30                     | 41     | 719                        | 36       | 76                             |
| Future Vol, veh/h          | 1488     | 30                     | 41     | 719                        | 36       | 76                             |
| Conflicting Peds, #/hr     | 0        | 0                      | 0      | 0                          | 0        | 0                              |
| Sign Control               | Free     | Free                   | Free   | Free                       | Stop     | Stop                           |
| RT Channelized             | -        | None                   | -      | None                       | -        | None                           |
| Storage Length             | -        | 200                    | 150    | -                          | 0        | -                              |
| Veh in Median Storage, #   | 0        | -                      | -      | 0                          | 0        | -                              |
| Grade, %                   | 0        | -                      | -      | 0                          | 0        | -                              |
| Peak Hour Factor           | 92       | 92                     | 92     | 92                         | 92       | 92                             |
| Heavy Vehicles, %          | 9        | 0                      | 0      | 2                          | 0        | 0                              |
| Mvmt Flow                  | 1617     | 33                     | 45     | 782                        | 39       | 83                             |
|                            |          |                        |        |                            |          |                                |
| Major/Minor                | Major1   |                        | Major2 |                            | Minor1   |                                |
| Conflicting Flow All       | 0        | 0                      | 1650   | 0                          | 2489     | 1617                           |
| Stage 1                    | -        | -                      | -      | -                          | 1617     | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 872      | -                              |
| Critical Hdwy              | -        | -                      | 4.1    | -                          | 6.4      | 6.2                            |
| Critical Hdwy Stg 1        | -        | -                      | -      | -                          | 5.4      | -                              |
| Critical Hdwy Stg 2        | -        | -                      | -      | -                          | 5.4      | -                              |
| Follow-up Hdwy             | -        | -                      | 2.2    | -                          | 3.5      | 3.3                            |
| Pot Cap-1 Maneuver         | -        | -                      | 397    | -                          | ~ 33     | 129                            |
| Stage 1                    | -        | -                      | -      | -                          | 180      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 412      | -                              |
| Platoon blocked, %         | -        | -                      |        | -                          |          |                                |
| Mov Cap-1 Maneuver         | -        | -                      | 397    | -                          | ~ 29     | 129                            |
| Mov Cap-2 Maneuver         | -        | -                      | -      | -                          | ~ 29     | -                              |
| Stage 1                    | -        | -                      | -      | -                          | 180      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 365      | -                              |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Approach                   | EB       |                        | WB     |                            | NB       |                                |
| HCM Control Delay, s       | 0        |                        | 0.8    |                            | \$ 609.3 |                                |
| HCM LOS                    | F        |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Minor Lane/Major Mvmt      | NBLn1    | EBT                    | EBR    | WBL                        | WBT      |                                |
| Capacity (veh/h)           | 61       | -                      | -      | 397                        | -        |                                |
| HCM Lane V/C Ratio         | 1.996    | -                      | -      | 0.112                      | -        |                                |
| HCM Control Delay (s)      | \$ 609.3 | -                      | -      | 15.2                       | -        |                                |
| HCM Lane LOS               | F        | -                      | -      | C                          | -        |                                |
| HCM 95th %tile Q(veh)      | 11.5     | -                      | -      | 0.4                        | -        |                                |
| Notes                      |          |                        |        |                            |          |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |        | +: Computation Not Defined |          | *: All major volume in platoon |

# HCM 6th Signalized Intersection Summary

## 4: Driveway #1 & Old Cornelia Highway

2035 - Traffic Signal  
PM Peak Hour

|                              |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Movement                     | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations          |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 1201                                                                              | 363                                                                               | 320                                                                               | 541                                                                               | 218                                                                               | 192                                                                               |
| Future Volume (veh/h)        | 1201                                                                              | 363                                                                               | 320                                                                               | 541                                                                               | 218                                                                               | 192                                                                               |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Ped-Bike Adj(A_pbT)          |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                | No                                                                                |                                                                                   |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              |
| Adj Flow Rate, veh/h         | 1305                                                                              | 0                                                                                 | 348                                                                               | 588                                                                               | 237                                                                               | 0                                                                                 |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Cap, veh/h                   | 1203                                                                              |                                                                                   | 303                                                                               | 1527                                                                              | 220                                                                               |                                                                                   |
| Arrive On Green              | 0.64                                                                              | 0.00                                                                              | 0.14                                                                              | 0.82                                                                              | 0.12                                                                              | 0.00                                                                              |
| Sat Flow, veh/h              | 1870                                                                              | 1585                                                                              | 1781                                                                              | 1870                                                                              | 1781                                                                              | 1585                                                                              |
| Grp Volume(v), veh/h         | 1305                                                                              | 0                                                                                 | 348                                                                               | 588                                                                               | 237                                                                               | 0                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1870                                                                              | 1585                                                                              | 1781                                                                              | 1870                                                                              | 1781                                                                              | 1585                                                                              |
| Q Serve(g_s), s              | 96.5                                                                              | 0.0                                                                               | 21.5                                                                              | 12.6                                                                              | 18.5                                                                              | 0.0                                                                               |
| Cycle Q Clear(g_c), s        | 96.5                                                                              | 0.0                                                                               | 21.5                                                                              | 12.6                                                                              | 18.5                                                                              | 0.0                                                                               |
| Prop In Lane                 |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Lane Grp Cap(c), veh/h       | 1203                                                                              |                                                                                   | 303                                                                               | 1527                                                                              | 220                                                                               |                                                                                   |
| V/C Ratio(X)                 | 1.08                                                                              |                                                                                   | 1.15                                                                              | 0.38                                                                              | 1.08                                                                              |                                                                                   |
| Avail Cap(c_a), veh/h        | 1203                                                                              |                                                                                   | 303                                                                               | 1527                                                                              | 220                                                                               |                                                                                   |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              |
| Uniform Delay (d), s/veh     | 26.8                                                                              | 0.0                                                                               | 57.8                                                                              | 3.7                                                                               | 65.8                                                                              | 0.0                                                                               |
| Incr Delay (d2), s/veh       | 52.1                                                                              | 0.0                                                                               | 97.7                                                                              | 0.2                                                                               | 83.2                                                                              | 0.0                                                                               |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |
| %ile BackOfQ(95%),veh/ln     | 72.8                                                                              | 0.0                                                                               | 28.1                                                                              | 6.4                                                                               | 20.2                                                                              | 0.0                                                                               |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| LnGrp Delay(d),s/veh         | 78.8                                                                              | 0.0                                                                               | 155.5                                                                             | 3.8                                                                               | 149.0                                                                             | 0.0                                                                               |
| LnGrp LOS                    | F                                                                                 |                                                                                   | F                                                                                 | A                                                                                 | F                                                                                 |                                                                                   |
| Approach Vol, veh/h          | 1305                                                                              | A                                                                                 |                                                                                   | 936                                                                               | 237                                                                               | A                                                                                 |
| Approach Delay, s/veh        | 78.8                                                                              |                                                                                   |                                                                                   | 60.2                                                                              | 149.0                                                                             |                                                                                   |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 | F                                                                                 |                                                                                   |
| Timer - Assigned Phs         | 2                                                                                 |                                                                                   | 5                                                                                 |                                                                                   | 6                                                                                 | 8                                                                                 |
| Phs Duration (G+Y+Rc), s     | 127.0                                                                             |                                                                                   | 26.0                                                                              |                                                                                   | 101.0                                                                             | 23.0                                                                              |
| Change Period (Y+Rc), s      | 4.5                                                                               |                                                                                   | 4.5                                                                               |                                                                                   | 4.5                                                                               | 4.5                                                                               |
| Max Green Setting (Gmax), s  | 122.5                                                                             |                                                                                   | 21.5                                                                              |                                                                                   | 96.5                                                                              | 18.5                                                                              |
| Max Q Clear Time (g_c+I1), s | 14.6                                                                              |                                                                                   | 23.5                                                                              |                                                                                   | 98.5                                                                              | 20.5                                                                              |
| Green Ext Time (p_c), s      | 16.7                                                                              |                                                                                   | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th Ctrl Delay           | 78.5                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th LOS                  | E                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Notes                        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |



**WITH WIDENING**

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑↑   |      |
| Traffic Vol, veh/h       | 693  | 11   | 1    | 958  | 15   | 3    |
| Future Vol, veh/h        | 693  | 11   | 1    | 958  | 15   | 3    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 7    | 11   | 0    | 2    | 0    | 33   |
| Mvmt Flow                | 753  | 12   | 1    | 1041 | 16   | 3    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |      |
|----------------------|--------|--------|--------|---|------|------|
| Conflicting Flow All | 0      | 0      | 765    | 0 | 1282 | 383  |
| Stage 1              | -      | -      | -      | - | 759  | -    |
| Stage 2              | -      | -      | -      | - | 523  | -    |
| Critical Hdwy        | -      | -      | 4.1    | - | 6.8  | 7.56 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.8  | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.8  | -    |
| Follow-up Hdwy       | -      | -      | 2.2    | - | 3.5  | 3.63 |
| Pot Cap-1 Maneuver   | -      | -      | 857    | - | 160  | 535  |
| Stage 1              | -      | -      | -      | - | 428  | -    |
| Stage 2              | -      | -      | -      | - | 565  | -    |
| Platoon blocked, %   | -      | -      | -      | - | -    | -    |
| Mov Cap-1 Maneuver   | -      | -      | 857    | - | 160  | 535  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 160  | -    |
| Stage 1              | -      | -      | -      | - | 428  | -    |
| Stage 2              | -      | -      | -      | - | 563  | -    |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 27.3 |
| HCM LOS              |    |    | D    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 181   | -   | -   | 857   | -   |
| HCM Lane V/C Ratio    | 0.108 | -   | -   | 0.001 | -   |
| HCM Control Delay (s) | 27.3  | -   | -   | 9.2   | 0   |
| HCM Lane LOS          | D     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.4   | -   | -   | 0     | -   |

| Intersection               |        |                        |        |                            |        |                                |
|----------------------------|--------|------------------------|--------|----------------------------|--------|--------------------------------|
| Int Delay, s/veh           | 16.8   |                        |        |                            |        |                                |
| Movement                   | EBT    | EBR                    | WBL    | WBT                        | NBL    | NBR                            |
| Lane Configurations        | ↑↑     | ↗                      | ↖      | ↑↑                         | ↘      |                                |
| Traffic Vol, veh/h         | 516    | 77                     | 82     | 1039                       | 90     | 72                             |
| Future Vol, veh/h          | 516    | 77                     | 82     | 1039                       | 90     | 72                             |
| Conflicting Peds, #/hr     | 0      | 0                      | 0      | 0                          | 0      | 0                              |
| Sign Control               | Free   | Free                   | Free   | Free                       | Stop   | Stop                           |
| RT Channelized             | -      | None                   | -      | None                       | -      | None                           |
| Storage Length             | -      | 200                    | 150    | -                          | 0      | -                              |
| Veh in Median Storage, #   | 0      | -                      | -      | 0                          | 0      | -                              |
| Grade, %                   | 0      | -                      | -      | 0                          | 0      | -                              |
| Peak Hour Factor           | 83     | 83                     | 83     | 83                         | 83     | 83                             |
| Heavy Vehicles, %          | 4      | 3                      | 3      | 2                          | 9      | 10                             |
| Mvmt Flow                  | 622    | 93                     | 99     | 1252                       | 108    | 87                             |
|                            |        |                        |        |                            |        |                                |
| Major/Minor                | Major1 |                        | Major2 |                            | Minor1 |                                |
| Conflicting Flow All       | 0      | 0                      | 715    | 0                          | 1446   | 311                            |
| Stage 1                    | -      | -                      | -      | -                          | 622    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 824    | -                              |
| Critical Hdwy              | -      | -                      | 4.16   | -                          | 6.98   | 7.1                            |
| Critical Hdwy Stg 1        | -      | -                      | -      | -                          | 5.98   | -                              |
| Critical Hdwy Stg 2        | -      | -                      | -      | -                          | 5.98   | -                              |
| Follow-up Hdwy             | -      | -                      | 2.23   | -                          | 3.59   | 3.4                            |
| Pot Cap-1 Maneuver         | -      | -                      | 875    | -                          | 115    | 662                            |
| Stage 1                    | -      | -                      | -      | -                          | 479    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 374    | -                              |
| Platoon blocked, %         | -      | -                      | -      | -                          | -      | -                              |
| Mov Cap-1 Maneuver         | -      | -                      | 875    | -                          | ~ 102  | 662                            |
| Mov Cap-2 Maneuver         | -      | -                      | -      | -                          | ~ 102  | -                              |
| Stage 1                    | -      | -                      | -      | -                          | 479    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 332    | -                              |
|                            |        |                        |        |                            |        |                                |
| Approach                   | EB     |                        | WB     |                            | NB     |                                |
| HCM Control Delay, s       | 0      |                        | 0.7    |                            | 189.3  |                                |
| HCM LOS                    |        |                        |        |                            | F      |                                |
|                            |        |                        |        |                            |        |                                |
| Minor Lane/Major Mvmt      | NBLn1  | EBT                    | EBR    | WBL                        | WBT    |                                |
| Capacity (veh/h)           | 163    | -                      | -      | 875                        | -      |                                |
| HCM Lane V/C Ratio         | 1.197  | -                      | -      | 0.113                      | -      |                                |
| HCM Control Delay (s)      | 189.3  | -                      | -      | 9.6                        | -      |                                |
| HCM Lane LOS               | F      | -                      | -      | A                          | -      |                                |
| HCM 95th %tile Q(veh)      | 10.8   | -                      | -      | 0.4                        | -      |                                |
| Notes                      |        |                        |        |                            |        |                                |
| ~: Volume exceeds capacity |        | \$: Delay exceeds 300s |        | +: Computation Not Defined |        | *: All major volume in platoon |

# HCM 6th Signalized Intersection Summary 4: Driveway #1 & Old Cornelia Highway

2025 - Traffic Signal w Widening  
AM Peak Hour

|                              | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|------------------------------|------|------|------|------|------|------|
| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations          | ↑↑   | ↑    | ↓    | ↑↑   | ↓    | ↑    |
| Traffic Volume (veh/h)       | 518  | 70   | 62   | 911  | 210  | 185  |
| Future Volume (veh/h)        | 518  | 70   | 62   | 911  | 210  | 185  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 563  | 0    | 67   | 990  | 228  | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1748 |      | 588  | 2284 | 315  |      |
| Arrive On Green              | 0.49 | 0.00 | 0.06 | 0.64 | 0.18 | 0.00 |
| Sat Flow, veh/h              | 3647 | 1585 | 1781 | 3647 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 563  | 0    | 67   | 990  | 228  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1777 | 1585 | 1781 | 1777 | 1781 | 1585 |
| Q Serve(g_s), s              | 4.8  | 0.0  | 0.8  | 6.9  | 6.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 4.8  | 0.0  | 0.8  | 6.9  | 6.0  | 0.0  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1748 |      | 588  | 2284 | 315  |      |
| V/C Ratio(X)                 | 0.32 |      | 0.11 | 0.43 | 0.72 |      |
| Avail Cap(c_a), veh/h        | 2603 |      | 748  | 3458 | 1162 |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh     | 7.6  | 0.0  | 4.8  | 4.4  | 19.4 | 0.0  |
| Incr Delay (d2), s/veh       | 0.1  | 0.0  | 0.1  | 0.1  | 3.2  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 2.1  | 0.0  | 0.3  | 1.8  | 4.5  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 7.8  | 0.0  | 4.9  | 4.5  | 22.5 | 0.0  |
| LnGrp LOS                    | A    |      | A    | A    | C    |      |
| Approach Vol, veh/h          | 563  | A    |      | 1057 | 228  | A    |
| Approach Delay, s/veh        | 7.8  |      |      | 4.6  | 22.5 |      |
| Approach LOS                 | A    |      |      | A    | C    |      |
| Timer - Assigned Phs         |      | 2    |      |      | 5    | 6    |
| Phs Duration (G+Y+Rc), s     |      | 36.5 |      |      | 7.5  | 29.0 |
| Change Period (Y+Rc), s      |      | 4.5  |      |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s  |      | 48.5 |      |      | 7.5  | 36.5 |
| Max Q Clear Time (g_c+I1), s |      | 8.9  |      |      | 2.8  | 6.8  |
| Green Ext Time (p_c), s      |      | 23.2 |      |      | 0.0  | 10.7 |
|                              |      |      |      |      |      | 0.8  |
| Intersection Summary         |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 7.8  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

## Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.2  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑    |      |
| Traffic Vol, veh/h       | 1144 | 15   | 0    | 666  | 8    | 0    |
| Future Vol, veh/h        | 1144 | 15   | 0    | 666  | 8    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 90   | 90   | 90   | 90   | 90   | 90   |
| Heavy Vehicles, %        | 1    | 8    | 2    | 1    | 14   | 2    |
| Mvmt Flow                | 1271 | 17   | 0    | 740  | 9    | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |      |
|----------------------|--------|--------|--------|---|------|------|
| Conflicting Flow All | 0      | 0      | 1288   | 0 | 1650 | 644  |
| Stage 1              | -      | -      | -      | - | 1280 | -    |
| Stage 2              | -      | -      | -      | - | 370  | -    |
| Critical Hdwy        | -      | -      | 4.14   | - | 7.08 | 6.94 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 6.08 | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 6.08 | -    |
| Follow-up Hdwy       | -      | -      | 2.22   | - | 3.64 | 3.32 |
| Pot Cap-1 Maneuver   | -      | -      | 534    | - | 79   | 416  |
| Stage 1              | -      | -      | -      | - | 203  | -    |
| Stage 2              | -      | -      | -      | - | 635  | -    |
| Platoon blocked, %   | -      | -      | -      | - | -    | -    |
| Mov Cap-1 Maneuver   | -      | -      | 534    | - | 79   | 416  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 79   | -    |
| Stage 1              | -      | -      | -      | - | 203  | -    |
| Stage 2              | -      | -      | -      | - | 635  | -    |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 56.3 |
| HCM LOS              |    |    | F    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 79    | -   | -   | 534 | -   |
| HCM Lane V/C Ratio    | 0.113 | -   | -   | -   | -   |
| HCM Control Delay (s) | 56.3  | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.4   | -   | -   | 0   | -   |



| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 2.4    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     | ↗    | ↖      | ↑↑    | ↘      |      |
| Traffic Vol, veh/h       | 1219   | 25   | 27     | 580   | 31     | 52   |
| Future Vol, veh/h        | 1219   | 25   | 27     | 580   | 31     | 52   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1325   | 27   | 29     | 630   | 34     | 57   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1352   | 0     | 1698   | 663  |
| Stage 1                  | -      | -    | -      | -     | 1325   | -    |
| Stage 2                  | -      | -    | -      | -     | 373    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 6.9  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 516    | -     | 85     | 409  |
| Stage 1                  | -      | -    | -      | -     | 216    | -    |
| Stage 2                  | -      | -    | -      | -     | 672    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 516    | -     | 80     | 409  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 80     | -    |
| Stage 1                  | -      | -    | -      | -     | 216    | -    |
| Stage 2                  | -      | -    | -      | -     | 634    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.6    |       | 52.6   |      |
| HCM LOS                  | F      |      |        |       |        |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 161    | -    | -      | 516   | -      |      |
| HCM Lane V/C Ratio       | 0.56   | -    | -      | 0.057 | -      |      |
| HCM Control Delay (s)    | 52.6   | -    | -      | 12.4  | -      |      |
| HCM Lane LOS             | F      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 2.9    | -    | -      | 0.2   | -      |      |

# HCM 6th Signalized Intersection Summary

## 4: Driveway #1 & Old Cornelia Highway

2025 - Traffic Signal w Widening  
PM Peak Hour

|                              | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|------------------------------|------|------|------|------|------|------|
| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations          | ↑↑   | ↑    | ↘    | ↑↑   | ↘    | ↗    |
| Traffic Volume (veh/h)       | 1035 | 236  | 208  | 466  | 141  | 124  |
| Future Volume (veh/h)        | 1035 | 236  | 208  | 466  | 141  | 124  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 1125 | 0    | 226  | 507  | 153  | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1992 |      | 457  | 2575 | 218  |      |
| Arrive On Green              | 0.56 | 0.00 | 0.09 | 0.72 | 0.12 | 0.00 |
| Sat Flow, veh/h              | 3647 | 1585 | 1781 | 3647 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 1125 | 0    | 226  | 507  | 153  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1777 | 1585 | 1781 | 1777 | 1781 | 1585 |
| Q Serve(g_s), s              | 12.0 | 0.0  | 2.7  | 2.7  | 4.9  | 0.0  |
| Cycle Q Clear(g_c), s        | 12.0 | 0.0  | 2.7  | 2.7  | 4.9  | 0.0  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1992 |      | 457  | 2575 | 218  |      |
| V/C Ratio(X)                 | 0.56 |      | 0.49 | 0.20 | 0.70 |      |
| Avail Cap(c_a), veh/h        | 2385 |      | 861  | 3774 | 560  |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh     | 8.3  | 0.0  | 6.4  | 2.6  | 24.8 | 0.0  |
| Incr Delay (d2), s/veh       | 0.3  | 0.0  | 0.8  | 0.0  | 4.1  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 5.5  | 0.0  | 0.9  | 0.5  | 3.9  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 8.6  | 0.0  | 7.3  | 2.6  | 28.9 | 0.0  |
| LnGrp LOS                    | A    |      | A    | A    | C    |      |
| Approach Vol, veh/h          | 1125 | A    |      | 733  | 153  | A    |
| Approach Delay, s/veh        | 8.6  |      |      | 4.1  | 28.9 |      |
| Approach LOS                 | A    |      |      | A    | C    |      |
| Timer - Assigned Phs         |      | 2    |      |      | 5    | 6    |
| Phs Duration (G+Y+Rc), s     |      | 47.1 |      |      | 9.7  | 37.5 |
| Change Period (Y+Rc), s      |      | 4.5  |      |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s  |      | 62.5 |      |      | 18.5 | 39.5 |
| Max Q Clear Time (g_c+I1), s |      | 4.7  |      |      | 4.7  | 14.0 |
| Green Ext Time (p_c), s      |      | 11.8 |      |      | 0.6  | 19.0 |
|                              |      |      |      |      |      | 0.3  |
| Intersection Summary         |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 8.5  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

### Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 0.3    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     |      |        | ↑↑    | ↑      |      |
| Traffic Vol, veh/h       | 779    | 11   | 1      | 1043  | 16     | 3    |
| Future Vol, veh/h        | 779    | 11   | 1      | 1043  | 16     | 3    |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | -    | -      | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 7      | 11   | 0      | 2     | 0      | 33   |
| Mvmt Flow                | 847    | 12   | 1      | 1134  | 17     | 3    |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 859    | 0     | 1422   | 430  |
| Stage 1                  | -      | -    | -      | -     | 853    | -    |
| Stage 2                  | -      | -    | -      | -     | 569    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 7.56 |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.63 |
| Pot Cap-1 Maneuver       | -      | -    | 791    | -     | 129    | 495  |
| Stage 1                  | -      | -    | -      | -     | 383    | -    |
| Stage 2                  | -      | -    | -      | -     | 535    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 791    | -     | 129    | 495  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 129    | -    |
| Stage 1                  | -      | -    | -      | -     | 383    | -    |
| Stage 2                  | -      | -    | -      | -     | 533    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0      |       | 33.7   |      |
| HCM LOS                  |        |      |        |       | D      |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 146    | -    | -      | 791   | -      |      |
| HCM Lane V/C Ratio       | 0.141  | -    | -      | 0.001 | -      |      |
| HCM Control Delay (s)    | 33.7   | -    | -      | 9.6   | 0      |      |
| HCM Lane LOS             | D      | -    | -      | A     | A      |      |
| HCM 95th %tile Q(veh)    | 0.5    | -    | -      | 0     | -      |      |

| Intersection               |          |                        |        |                            |          |                                |
|----------------------------|----------|------------------------|--------|----------------------------|----------|--------------------------------|
| Int Delay, s/veh           | 33.4     |                        |        |                            |          |                                |
| Movement                   | EBT      | EBR                    | WBL    | WBT                        | NBL      | NBR                            |
| Lane Configurations        | ↑↑       | ↑                      | ↑      | ↑↑                         | ↑        | ↑                              |
| Traffic Vol, veh/h         | 567      | 83                     | 94     | 1150                       | 97       | 80                             |
| Future Vol, veh/h          | 567      | 83                     | 94     | 1150                       | 97       | 80                             |
| Conflicting Peds, #/hr     | 0        | 0                      | 0      | 0                          | 0        | 0                              |
| Sign Control               | Free     | Free                   | Free   | Free                       | Stop     | Stop                           |
| RT Channelized             | -        | None                   | -      | None                       | -        | None                           |
| Storage Length             | -        | 200                    | 150    | -                          | 0        | -                              |
| Veh in Median Storage, #   | 0        | -                      | -      | 0                          | 0        | -                              |
| Grade, %                   | 0        | -                      | -      | 0                          | 0        | -                              |
| Peak Hour Factor           | 83       | 83                     | 83     | 83                         | 83       | 83                             |
| Heavy Vehicles, %          | 4        | 3                      | 3      | 2                          | 9        | 10                             |
| Mvmt Flow                  | 683      | 100                    | 113    | 1386                       | 117      | 96                             |
|                            |          |                        |        |                            |          |                                |
| Major/Minor                | Major1   |                        | Major2 |                            | Minor1   |                                |
| Conflicting Flow All       | 0        | 0                      | 783    | 0                          | 1602     | 342                            |
| Stage 1                    | -        | -                      | -      | -                          | 683      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 919      | -                              |
| Critical Hdwy              | -        | -                      | 4.16   | -                          | 6.98     | 7.1                            |
| Critical Hdwy Stg 1        | -        | -                      | -      | -                          | 5.98     | -                              |
| Critical Hdwy Stg 2        | -        | -                      | -      | -                          | 5.98     | -                              |
| Follow-up Hdwy             | -        | -                      | 2.23   | -                          | 3.59     | 3.4                            |
| Pot Cap-1 Maneuver         | -        | -                      | 824    | -                          | ~ 90     | 631                            |
| Stage 1                    | -        | -                      | -      | -                          | 445      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 333      | -                              |
| Platoon blocked, %         | -        | -                      | -      | -                          | -        | -                              |
| Mov Cap-1 Maneuver         | -        | -                      | 824    | -                          | ~ 78     | 631                            |
| Mov Cap-2 Maneuver         | -        | -                      | -      | -                          | ~ 78     | -                              |
| Stage 1                    | -        | -                      | -      | -                          | 445      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 287      | -                              |
|                            |          |                        |        |                            |          |                                |
| Approach                   | EB       |                        | WB     |                            | NB       |                                |
| HCM Control Delay, s       | 0        |                        | 0.8    |                            | \$ 385.7 |                                |
| HCM LOS                    | F        |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Minor Lane/Major Mvmt      | NBLn1    | EBT                    | EBR    | WBL                        | WBT      |                                |
| Capacity (veh/h)           | 129      | -                      | -      | 824                        | -        |                                |
| HCM Lane V/C Ratio         | 1.653    | -                      | -      | 0.137                      | -        |                                |
| HCM Control Delay (s)      | \$ 385.7 | -                      | -      | 10.1                       | -        |                                |
| HCM Lane LOS               | F        | -                      | -      | B                          | -        |                                |
| HCM 95th %tile Q(veh)      | 15.6     | -                      | -      | 0.5                        | -        |                                |
| Notes                      |          |                        |        |                            |          |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |        | +: Computation Not Defined |          | *: All major volume in platoon |

# HCM 6th Signalized Intersection Summary

## 4: Driveway #1 & Old Cornelia Highway

2030 - Traffic Signal w Widening  
AM Peak Hour

|                              |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Movement                     | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations          | ↑↑                                                                                | ↗                                                                                 | ↖                                                                                 | ↑↑                                                                                | ↖                                                                                 | ↗                                                                                 |
| Traffic Volume (veh/h)       | 557                                                                               | 90                                                                                | 80                                                                                | 979                                                                               | 265                                                                               | 233                                                                               |
| Future Volume (veh/h)        | 557                                                                               | 90                                                                                | 80                                                                                | 979                                                                               | 265                                                                               | 233                                                                               |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Ped-Bike Adj(A_pbT)          |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                | No                                                                                |                                                                                   |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              |
| Adj Flow Rate, veh/h         | 605                                                                               | 0                                                                                 | 87                                                                                | 1064                                                                              | 288                                                                               | 0                                                                                 |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Cap, veh/h                   | 1715                                                                              |                                                                                   | 555                                                                               | 2240                                                                              | 369                                                                               |                                                                                   |
| Arrive On Green              | 0.48                                                                              | 0.00                                                                              | 0.07                                                                              | 0.63                                                                              | 0.21                                                                              | 0.00                                                                              |
| Sat Flow, veh/h              | 3647                                                                              | 1585                                                                              | 1781                                                                              | 3647                                                                              | 1781                                                                              | 1585                                                                              |
| Grp Volume(v), veh/h         | 605                                                                               | 0                                                                                 | 87                                                                                | 1064                                                                              | 288                                                                               | 0                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1777                                                                              | 1585                                                                              | 1781                                                                              | 1777                                                                              | 1781                                                                              | 1585                                                                              |
| Q Serve(g_s), s              | 5.9                                                                               | 0.0                                                                               | 1.2                                                                               | 8.8                                                                               | 8.5                                                                               | 0.0                                                                               |
| Cycle Q Clear(g_c), s        | 5.9                                                                               | 0.0                                                                               | 1.2                                                                               | 8.8                                                                               | 8.5                                                                               | 0.0                                                                               |
| Prop In Lane                 |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Lane Grp Cap(c), veh/h       | 1715                                                                              |                                                                                   | 555                                                                               | 2240                                                                              | 369                                                                               |                                                                                   |
| V/C Ratio(X)                 | 0.35                                                                              |                                                                                   | 0.16                                                                              | 0.47                                                                              | 0.78                                                                              |                                                                                   |
| Avail Cap(c_a), veh/h        | 2341                                                                              |                                                                                   | 678                                                                               | 3110                                                                              | 1045                                                                              |                                                                                   |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              |
| Uniform Delay (d), s/veh     | 8.9                                                                               | 0.0                                                                               | 5.6                                                                               | 5.4                                                                               | 20.8                                                                              | 0.0                                                                               |
| Incr Delay (d2), s/veh       | 0.1                                                                               | 0.0                                                                               | 0.1                                                                               | 0.2                                                                               | 3.6                                                                               | 0.0                                                                               |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |
| %ile BackOfQ(95%),veh/ln     | 2.9                                                                               | 0.0                                                                               | 0.5                                                                               | 3.0                                                                               | 6.4                                                                               | 0.0                                                                               |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| LnGrp Delay(d),s/veh         | 9.1                                                                               | 0.0                                                                               | 5.8                                                                               | 5.6                                                                               | 24.4                                                                              | 0.0                                                                               |
| LnGrp LOS                    | A                                                                                 |                                                                                   | A                                                                                 | A                                                                                 | C                                                                                 |                                                                                   |
| Approach Vol, veh/h          | 605                                                                               | A                                                                                 |                                                                                   | 1151                                                                              | 288                                                                               | A                                                                                 |
| Approach Delay, s/veh        | 9.1                                                                               |                                                                                   |                                                                                   | 5.6                                                                               | 24.4                                                                              |                                                                                   |
| Approach LOS                 | A                                                                                 |                                                                                   |                                                                                   | A                                                                                 | C                                                                                 |                                                                                   |
| Timer - Assigned Phs         | 2                                                                                 |                                                                                   | 5                                                                                 |                                                                                   | 6                                                                                 | 8                                                                                 |
| Phs Duration (G+Y+Rc), s     | 39.4                                                                              |                                                                                   | 8.2                                                                               |                                                                                   | 31.2                                                                              | 16.0                                                                              |
| Change Period (Y+Rc), s      | 4.5                                                                               |                                                                                   | 4.5                                                                               |                                                                                   | 4.5                                                                               | 4.5                                                                               |
| Max Green Setting (Gmax), s  | 48.5                                                                              |                                                                                   | 7.5                                                                               |                                                                                   | 36.5                                                                              | 32.5                                                                              |
| Max Q Clear Time (g_c+I1), s | 10.8                                                                              |                                                                                   | 3.2                                                                               |                                                                                   | 7.9                                                                               | 10.5                                                                              |
| Green Ext Time (p_c), s      | 24.2                                                                              |                                                                                   | 0.1                                                                               |                                                                                   | 11.4                                                                              | 1.0                                                                               |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                   | 9.3                                                                               |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th LOS                  |                                                                                   |                                                                                   | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| Notes                        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |



| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑    |      |
| Traffic Vol, veh/h       | 1251 | 16   | 0    | 745  | 9    | 0    |
| Future Vol, veh/h        | 1251 | 16   | 0    | 745  | 9    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 90   | 90   | 90   | 90   | 90   | 90   |
| Heavy Vehicles, %        | 1    | 8    | 2    | 1    | 14   | 2    |
| Mvmt Flow                | 1390 | 18   | 0    | 828  | 10   | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |      |
|----------------------|--------|--------|--------|---|------|------|
| Conflicting Flow All | 0      | 0      | 1408   | 0 | 1813 | 704  |
| Stage 1              | -      | -      | -      | - | 1399 | -    |
| Stage 2              | -      | -      | -      | - | 414  | -    |
| Critical Hdwy        | -      | -      | 4.14   | - | 7.08 | 6.94 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 6.08 | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 6.08 | -    |
| Follow-up Hdwy       | -      | -      | 2.22   | - | 3.64 | 3.32 |
| Pot Cap-1 Maneuver   | -      | -      | 481    | - | 61   | 379  |
| Stage 1              | -      | -      | -      | - | 174  | -    |
| Stage 2              | -      | -      | -      | - | 602  | -    |
| Platoon blocked, %   | -      | -      | -      | - | -    | -    |
| Mov Cap-1 Maneuver   | -      | -      | 481    | - | 61   | 379  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 61   | -    |
| Stage 1              | -      | -      | -      | - | 174  | -    |
| Stage 2              | -      | -      | -      | - | 602  | -    |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 75.3 |
| HCM LOS              |    |    | F    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 61    | -   | -   | 481 | -   |
| HCM Lane V/C Ratio    | 0.164 | -   | -   | -   | -   |
| HCM Control Delay (s) | 75.3  | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.5   | -   | -   | 0   | -   |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 4.3    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     | ↑    | ↑      | ↑↑    | ↑      | ↑    |
| Traffic Vol, veh/h       | 1339   | 27   | 33     | 644   | 33     | 62   |
| Future Vol, veh/h        | 1339   | 27   | 33     | 644   | 33     | 62   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1455   | 29   | 36     | 700   | 36     | 67   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1484   | 0     | 1877   | 728  |
| Stage 1                  | -      | -    | -      | -     | 1455   | -    |
| Stage 2                  | -      | -    | -      | -     | 422    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 6.9  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 459    | -     | 65     | 370  |
| Stage 1                  | -      | -    | -      | -     | 184    | -    |
| Stage 2                  | -      | -    | -      | -     | 635    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 459    | -     | 60     | 370  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 60     | -    |
| Stage 1                  | -      | -    | -      | -     | 184    | -    |
| Stage 2                  | -      | -    | -      | -     | 585    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.7    |       | 92.8   |      |
| HCM LOS                  |        |      |        |       | F      |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 132    | -    | -      | 459   | -      |      |
| HCM Lane V/C Ratio       | 0.782  | -    | -      | 0.078 | -      |      |
| HCM Control Delay (s)    | 92.8   | -    | -      | 13.5  | -      |      |
| HCM Lane LOS             | F      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 4.7    | -    | -      | 0.3   | -      |      |

# HCM 6th Signalized Intersection Summary

## 4: Driveway #1 & Old Cornelia Highway

2030 - Traffic Signal w Widening  
PM Peak Hour

|                              |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Movement                     | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations          | ↑↑                                                                                | ↑                                                                                 | ↓                                                                                 | ↑↑                                                                                | ↓                                                                                 | ↑                                                                                 |
| Traffic Volume (veh/h)       | 1113                                                                              | 288                                                                               | 253                                                                               | 501                                                                               | 176                                                                               | 154                                                                               |
| Future Volume (veh/h)        | 1113                                                                              | 288                                                                               | 253                                                                               | 501                                                                               | 176                                                                               | 154                                                                               |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Ped-Bike Adj(A_pbT)          |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                | No                                                                                |                                                                                   |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              |
| Adj Flow Rate, veh/h         | 1210                                                                              | 0                                                                                 | 275                                                                               | 545                                                                               | 191                                                                               | 0                                                                                 |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Cap, veh/h                   | 1945                                                                              |                                                                                   | 436                                                                               | 2552                                                                              | 251                                                                               |                                                                                   |
| Arrive On Green              | 0.55                                                                              | 0.00                                                                              | 0.10                                                                              | 0.72                                                                              | 0.14                                                                              | 0.00                                                                              |
| Sat Flow, veh/h              | 3647                                                                              | 1585                                                                              | 1781                                                                              | 3647                                                                              | 1781                                                                              | 1585                                                                              |
| Grp Volume(v), veh/h         | 1210                                                                              | 0                                                                                 | 275                                                                               | 545                                                                               | 191                                                                               | 0                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1777                                                                              | 1585                                                                              | 1781                                                                              | 1777                                                                              | 1781                                                                              | 1585                                                                              |
| Q Serve(g_s), s              | 14.9                                                                              | 0.0                                                                               | 3.7                                                                               | 3.3                                                                               | 6.6                                                                               | 0.0                                                                               |
| Cycle Q Clear(g_c), s        | 14.9                                                                              | 0.0                                                                               | 3.7                                                                               | 3.3                                                                               | 6.6                                                                               | 0.0                                                                               |
| Prop In Lane                 |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Lane Grp Cap(c), veh/h       | 1945                                                                              |                                                                                   | 436                                                                               | 2552                                                                              | 251                                                                               |                                                                                   |
| V/C Ratio(X)                 | 0.62                                                                              |                                                                                   | 0.63                                                                              | 0.21                                                                              | 0.76                                                                              |                                                                                   |
| Avail Cap(c_a), veh/h        | 2196                                                                              |                                                                                   | 773                                                                               | 3474                                                                              | 515                                                                               |                                                                                   |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              |
| Uniform Delay (d), s/veh     | 9.9                                                                               | 0.0                                                                               | 9.3                                                                               | 3.0                                                                               | 26.4                                                                              | 0.0                                                                               |
| Incr Delay (d2), s/veh       | 0.4                                                                               | 0.0                                                                               | 1.5                                                                               | 0.0                                                                               | 4.7                                                                               | 0.0                                                                               |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |
| %ile BackOfQ(95%),veh/ln     | 7.6                                                                               | 0.0                                                                               | 1.7                                                                               | 0.9                                                                               | 5.4                                                                               | 0.0                                                                               |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| LnGrp Delay(d),s/veh         | 10.4                                                                              | 0.0                                                                               | 10.8                                                                              | 3.0                                                                               | 31.1                                                                              | 0.0                                                                               |
| LnGrp LOS                    | B                                                                                 |                                                                                   | B                                                                                 | A                                                                                 | C                                                                                 |                                                                                   |
| Approach Vol, veh/h          | 1210                                                                              | A                                                                                 |                                                                                   | 820                                                                               | 191                                                                               | A                                                                                 |
| Approach Delay, s/veh        | 10.4                                                                              |                                                                                   |                                                                                   | 5.7                                                                               | 31.1                                                                              |                                                                                   |
| Approach LOS                 | B                                                                                 |                                                                                   |                                                                                   | A                                                                                 | C                                                                                 |                                                                                   |
| Timer - Assigned Phs         | 2                                                                                 |                                                                                   | 5                                                                                 |                                                                                   | 6                                                                                 | 8                                                                                 |
| Phs Duration (G+Y+Rc), s     | 50.4                                                                              |                                                                                   | 10.9                                                                              |                                                                                   | 39.5                                                                              | 13.5                                                                              |
| Change Period (Y+Rc), s      | 4.5                                                                               |                                                                                   | 4.5                                                                               |                                                                                   | 4.5                                                                               | 4.5                                                                               |
| Max Green Setting (Gmax), s  | 62.5                                                                              |                                                                                   | 18.5                                                                              |                                                                                   | 39.5                                                                              | 18.5                                                                              |
| Max Q Clear Time (g_c+I1), s | 5.3                                                                               |                                                                                   | 5.7                                                                               |                                                                                   | 16.9                                                                              | 8.6                                                                               |
| Green Ext Time (p_c), s      | 12.9                                                                              |                                                                                   | 0.7                                                                               |                                                                                   | 18.1                                                                              | 0.4                                                                               |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th Ctrl Delay           | 10.4                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Notes                        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.4  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑↑   |      |
| Traffic Vol, veh/h       | 879  | 12   | 1    | 1137 | 17   | 4    |
| Future Vol, veh/h        | 879  | 12   | 1    | 1137 | 17   | 4    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 7    | 11   | 0    | 2    | 0    | 33   |
| Mvmt Flow                | 955  | 13   | 1    | 1236 | 18   | 4    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |      |
|----------------------|--------|--------|--------|---|------|------|
| Conflicting Flow All | 0      | 0      | 968    | 0 | 1582 | 484  |
| Stage 1              | -      | -      | -      | - | 962  | -    |
| Stage 2              | -      | -      | -      | - | 620  | -    |
| Critical Hdwy        | -      | -      | 4.1    | - | 6.8  | 7.56 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.8  | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.8  | -    |
| Follow-up Hdwy       | -      | -      | 2.2    | - | 3.5  | 3.63 |
| Pot Cap-1 Maneuver   | -      | -      | 720    | - | 101  | 454  |
| Stage 1              | -      | -      | -      | - | 336  | -    |
| Stage 2              | -      | -      | -      | - | 504  | -    |
| Platoon blocked, %   | -      | -      | -      | - | -    | -    |
| Mov Cap-1 Maneuver   | -      | -      | 720    | - | 101  | 454  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 101  | -    |
| Stage 1              | -      | -      | -      | - | 336  | -    |
| Stage 2              | -      | -      | -      | - | 502  | -    |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 42.3 |
| HCM LOS              |    |    | E    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 119   | -   | -   | 720   | -   |
| HCM Lane V/C Ratio    | 0.192 | -   | -   | 0.002 | -   |
| HCM Control Delay (s) | 42.3  | -   | -   | 10    | 0   |
| HCM Lane LOS          | E     | -   | -   | B     | A   |
| HCM 95th %tile Q(veh) | 0.7   | -   | -   | 0     | -   |

| Intersection               |          |                        |        |                            |          |                                |
|----------------------------|----------|------------------------|--------|----------------------------|----------|--------------------------------|
| Int Delay, s/veh           | 63.6     |                        |        |                            |          |                                |
| Movement                   | EBT      | EBR                    | WBL    | WBT                        | NBL      | NBR                            |
| Lane Configurations        | ↑↑       | ↗                      | ↖      | ↑↑                         | ↘        |                                |
| Traffic Vol, veh/h         | 623      | 90                     | 109    | 1277                       | 105      | 89                             |
| Future Vol, veh/h          | 623      | 90                     | 109    | 1277                       | 105      | 89                             |
| Conflicting Peds, #/hr     | 0        | 0                      | 0      | 0                          | 0        | 0                              |
| Sign Control               | Free     | Free                   | Free   | Free                       | Stop     | Stop                           |
| RT Channelized             | -        | None                   | -      | None                       | -        | None                           |
| Storage Length             | -        | 200                    | 150    | -                          | 0        | -                              |
| Veh in Median Storage, #   | 0        | -                      | -      | 0                          | 0        | -                              |
| Grade, %                   | 0        | -                      | -      | 0                          | 0        | -                              |
| Peak Hour Factor           | 83       | 83                     | 83     | 83                         | 83       | 83                             |
| Heavy Vehicles, %          | 4        | 3                      | 3      | 2                          | 9        | 10                             |
| Mvmt Flow                  | 751      | 108                    | 131    | 1539                       | 127      | 107                            |
|                            |          |                        |        |                            |          |                                |
| Major/Minor                | Major1   |                        | Major2 |                            | Minor1   |                                |
| Conflicting Flow All       | 0        | 0                      | 859    | 0                          | 1783     | 376                            |
| Stage 1                    | -        | -                      | -      | -                          | 751      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 1032     | -                              |
| Critical Hdwy              | -        | -                      | 4.16   | -                          | 6.98     | 7.1                            |
| Critical Hdwy Stg 1        | -        | -                      | -      | -                          | 5.98     | -                              |
| Critical Hdwy Stg 2        | -        | -                      | -      | -                          | 5.98     | -                              |
| Follow-up Hdwy             | -        | -                      | 2.23   | -                          | 3.59     | 3.4                            |
| Pot Cap-1 Maneuver         | -        | -                      | 772    | -                          | ~ 68     | 599                            |
| Stage 1                    | -        | -                      | -      | -                          | 409      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 289      | -                              |
| Platoon blocked, %         | -        | -                      | -      | -                          | -        | -                              |
| Mov Cap-1 Maneuver         | -        | -                      | 772    | -                          | ~ 56     | 599                            |
| Mov Cap-2 Maneuver         | -        | -                      | -      | -                          | ~ 56     | -                              |
| Stage 1                    | -        | -                      | -      | -                          | 409      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 240      | -                              |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Approach                   | EB       |                        | WB     |                            | NB       |                                |
| HCM Control Delay, s       | 0        |                        | 0.8    |                            | \$ 746.5 |                                |
| HCM LOS                    |          |                        |        |                            | F        |                                |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Minor Lane/Major Mvmt      | NBLn1    | EBT                    | EBR    | WBL                        | WBT      |                                |
| Capacity (veh/h)           | 96       | -                      | -      | 772                        | -        |                                |
| HCM Lane V/C Ratio         | 2.435    | -                      | -      | 0.17                       | -        |                                |
| HCM Control Delay (s)      | \$ 746.5 | -                      | -      | 10.6                       | -        |                                |
| HCM Lane LOS               | F        | -                      | -      | B                          | -        |                                |
| HCM 95th %tile Q(veh)      | 21.3     | -                      | -      | 0.6                        | -        |                                |
| Notes                      |          |                        |        |                            |          |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |        | +: Computation Not Defined |          | *: All major volume in platoon |



# HCM 6th Signalized Intersection Summary

## 4: Driveway #1 & Old Cornelia Highway

2035 - Traffic Signal w Widening

AM Peak Hour

|                                                                                                               | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|---------------------------------------------------------------------------------------------------------------|------|------|------|------|------|------|
| Movement                                                                                                      | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations                                                                                           | ↑↑   | ↑    | ↘    | ↑↑   | ↘    | ↑    |
| Traffic Volume (veh/h)                                                                                        | 601  | 111  | 98   | 1156 | 329  | 290  |
| Future Volume (veh/h)                                                                                         | 601  | 111  | 98   | 1156 | 329  | 290  |
| Initial Q (Qb), veh                                                                                           | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)                                                                                           |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj                                                                                              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach                                                                                         | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln                                                                                        | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h                                                                                          | 653  | 0    | 107  | 1257 | 358  | 0    |
| Peak Hour Factor                                                                                              | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %                                                                                          | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                                                                                                    | 1244 |      | 608  | 2213 | 428  |      |
| Arrive On Green                                                                                               | 0.35 | 0.00 | 0.20 | 0.62 | 0.24 | 0.00 |
| Sat Flow, veh/h                                                                                               | 3647 | 1585 | 1781 | 3647 | 1781 | 1585 |
| Grp Volume(v), veh/h                                                                                          | 653  | 0    | 107  | 1257 | 358  | 0    |
| Grp Sat Flow(s),veh/h/ln                                                                                      | 1777 | 1585 | 1781 | 1777 | 1781 | 1585 |
| Q Serve(g_s), s                                                                                               | 9.6  | 0.0  | 0.0  | 13.6 | 12.5 | 0.0  |
| Cycle Q Clear(g_c), s                                                                                         | 9.6  | 0.0  | 0.0  | 13.6 | 12.5 | 0.0  |
| Prop In Lane                                                                                                  |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h                                                                                        | 1244 |      | 608  | 2213 | 428  |      |
| V/C Ratio(X)                                                                                                  | 0.52 |      | 0.18 | 0.57 | 0.84 |      |
| Avail Cap(c_a), veh/h                                                                                         | 1975 |      | 608  | 2624 | 881  |      |
| HCM Platoon Ratio                                                                                             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)                                                                                            | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh                                                                                      | 17.0 | 0.0  | 14.8 | 7.2  | 23.7 | 0.0  |
| Incr Delay (d2), s/veh                                                                                        | 0.3  | 0.0  | 0.1  | 0.2  | 4.4  | 0.0  |
| Initial Q Delay(d3),s/veh                                                                                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln                                                                                      | 6.1  | 0.0  | 1.8  | 5.9  | 9.3  | 0.0  |
| Unsig. Movement Delay, s/veh                                                                                  |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh                                                                                          | 17.3 | 0.0  | 14.9 | 7.5  | 28.1 | 0.0  |
| LnGrp LOS                                                                                                     | B    |      | B    | A    | C    |      |
| Approach Vol, veh/h                                                                                           | 653  | A    |      | 1364 | 358  | A    |
| Approach Delay, s/veh                                                                                         | 17.3 |      |      | 8.1  | 28.1 |      |
| Approach LOS                                                                                                  | B    |      |      | A    | C    |      |
| Timer - Assigned Phs                                                                                          |      | 2    |      |      | 5    | 6    |
| Phs Duration (G+Y+Rc), s                                                                                      |      | 45.4 |      |      | 17.9 | 27.5 |
| Change Period (Y+Rc), s                                                                                       |      | 4.5  |      |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s                                                                                   |      | 48.5 |      |      | 7.5  | 36.5 |
| Max Q Clear Time (g_c+I1), s                                                                                  |      | 15.6 |      |      | 2.0  | 11.6 |
| Green Ext Time (p_c), s                                                                                       |      | 25.3 |      |      | 0.1  | 11.4 |
|                                                                                                               |      |      |      |      |      | 1.2  |
| <b>Intersection Summary</b>                                                                                   |      |      |      |      |      |      |
| HCM 6th Ctrl Delay                                                                                            |      |      | 13.6 |      |      |      |
| HCM 6th LOS                                                                                                   |      |      | B    |      |      |      |
| <b>Notes</b>                                                                                                  |      |      |      |      |      |      |
| Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay. |      |      |      |      |      |      |

| Intersection             |        |      |        |      |        |      |
|--------------------------|--------|------|--------|------|--------|------|
| Int Delay, s/veh         | 0.5    |      |        |      |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT  | NBL    | NBR  |
| Lane Configurations      | ↑↑     |      |        | ↑↑   | ↑↑     |      |
| Traffic Vol, veh/h       | 1375   | 17   | 0      | 851  | 10     | 0    |
| Future Vol, veh/h        | 1375   | 17   | 0      | 851  | 10     | 0    |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0    | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free | Stop   | Stop |
| RT Channelized           | -      | None | -      | None | -      | None |
| Storage Length           | -      | -    | -      | -    | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0    | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0    | 0      | -    |
| Peak Hour Factor         | 90     | 90   | 90     | 90   | 90     | 90   |
| Heavy Vehicles, %        | 1      | 8    | 2      | 1    | 14     | 2    |
| Mvmt Flow                | 1528   | 19   | 0      | 946  | 11     | 0    |
|                          |        |      |        |      |        |      |
| Major/Minor              | Major1 |      | Major2 |      | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1547   | 0    | 2011   | 774  |
| Stage 1                  | -      | -    | -      | -    | 1538   | -    |
| Stage 2                  | -      | -    | -      | -    | 473    | -    |
| Critical Hdwy            | -      | -    | 4.14   | -    | 7.08   | 6.94 |
| Critical Hdwy Stg 1      | -      | -    | -      | -    | 6.08   | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -    | 6.08   | -    |
| Follow-up Hdwy           | -      | -    | 2.22   | -    | 3.64   | 3.32 |
| Pot Cap-1 Maneuver       | -      | -    | 425    | -    | 44     | 341  |
| Stage 1                  | -      | -    | -      | -    | 145    | -    |
| Stage 2                  | -      | -    | -      | -    | 560    | -    |
| Platoon blocked, %       | -      | -    |        | -    |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 425    | -    | 44     | 341  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -    | 44     | -    |
| Stage 1                  | -      | -    | -      | -    | 145    | -    |
| Stage 2                  | -      | -    | -      | -    | 560    | -    |
|                          |        |      |        |      |        |      |
|                          |        |      |        |      |        |      |
| Approach                 | EB     |      | WB     |      | NB     |      |
| HCM Control Delay, s     | 0      |      | 0      |      | 112.5  |      |
| HCM LOS                  |        |      |        |      | F      |      |
|                          |        |      |        |      |        |      |
|                          |        |      |        |      |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL  | WBT    |      |
| Capacity (veh/h)         | 44     | -    | -      | 425  | -      |      |
| HCM Lane V/C Ratio       | 0.253  | -    | -      | -    | -      |      |
| HCM Control Delay (s)    | 112.5  | -    | -      | 0    | -      |      |
| HCM Lane LOS             | F      | -    | -      | A    | -      |      |
| HCM 95th %tile Q(veh)    | 0.8    | -    | -      | 0    | -      |      |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 11.2   |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     | ↗    | ↘      | ↑↑    | ↘      |      |
| Traffic Vol, veh/h       | 1488   | 30   | 41     | 719   | 36     | 76   |
| Future Vol, veh/h        | 1488   | 30   | 41     | 719   | 36     | 76   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1617   | 33   | 45     | 782   | 39     | 83   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1650   | 0     | 2098   | 809  |
| Stage 1                  | -      | -    | -      | -     | 1617   | -    |
| Stage 2                  | -      | -    | -      | -     | 481    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 6.9  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 397    | -     | 46     | 328  |
| Stage 1                  | -      | -    | -      | -     | 151    | -    |
| Stage 2                  | -      | -    | -      | -     | 593    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 397    | -     | 41     | 328  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 41     | -    |
| Stage 1                  | -      | -    | -      | -     | 151    | -    |
| Stage 2                  | -      | -    | -      | -     | 526    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.8    |       | 233.4  |      |
| HCM LOS                  | F      |      |        |       |        |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 101    | -    | -      | 397   | -      |      |
| HCM Lane V/C Ratio       | 1.205  | -    | -      | 0.112 | -      |      |
| HCM Control Delay (s)    | 233.4  | -    | -      | 15.2  | -      |      |
| HCM Lane LOS             | F      | -    | -      | C     | -      |      |
| HCM 95th %tile Q(veh)    | 8.2    | -    | -      | 0.4   | -      |      |

# HCM 6th Signalized Intersection Summary

## 4: Driveway #1 & Old Cornelia Highway

2035 - Traffic Signal w Widening  
PM Peak Hour

|                              | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|------------------------------|------|------|------|------|------|------|
| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations          | ↑↑   | ↗    | ↙    | ↑↑   | ↙    | ↗    |
| Traffic Volume (veh/h)       | 1201 | 363  | 320  | 541  | 218  | 192  |
| Future Volume (veh/h)        | 1201 | 363  | 320  | 541  | 218  | 192  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 1305 | 0    | 348  | 588  | 237  | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1864 |      | 422  | 2519 | 291  |      |
| Arrive On Green              | 0.52 | 0.00 | 0.12 | 0.71 | 0.16 | 0.00 |
| Sat Flow, veh/h              | 3647 | 1585 | 1781 | 3647 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 1305 | 0    | 348  | 588  | 237  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1777 | 1585 | 1781 | 1777 | 1781 | 1585 |
| Q Serve(g_s), s              | 19.4 | 0.0  | 5.6  | 4.1  | 9.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 19.4 | 0.0  | 5.6  | 4.1  | 9.0  | 0.0  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1864 |      | 422  | 2519 | 291  |      |
| V/C Ratio(X)                 | 0.70 |      | 0.83 | 0.23 | 0.81 |      |
| Avail Cap(c_a), veh/h        | 1992 |      | 675  | 3152 | 468  |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh     | 12.6 | 0.0  | 12.8 | 3.6  | 28.4 | 0.0  |
| Incr Delay (d2), s/veh       | 1.0  | 0.0  | 4.6  | 0.0  | 5.7  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 10.3 | 0.0  | 5.5  | 1.4  | 7.5  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 13.6 | 0.0  | 17.4 | 3.6  | 34.2 | 0.0  |
| LnGrp LOS                    | B    |      | B    | A    | C    |      |
| Approach Vol, veh/h          | 1305 | A    |      | 936  | 237  | A    |
| Approach Delay, s/veh        | 13.6 |      |      | 8.7  | 34.2 |      |
| Approach LOS                 | B    |      |      | A    | C    |      |
| Timer - Assigned Phs         | 2    |      | 5    |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     | 54.4 |      | 13.0 |      | 41.5 | 16.0 |
| Change Period (Y+Rc), s      | 4.5  |      | 4.5  |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s  | 62.5 |      | 18.5 |      | 39.5 | 18.5 |
| Max Q Clear Time (g_c+I1), s | 6.1  |      | 7.6  |      | 21.4 | 11.0 |
| Green Ext Time (p_c), s      | 14.2 |      | 0.9  |      | 15.5 | 0.5  |
| Intersection Summary         |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           | 13.7 |      |      |      |      |      |
| HCM 6th LOS                  | B    |      |      |      |      |      |

### **3. ROUNDABOUT**



## **SIGNLE LANE ROUNDABOUT**

# MOVEMENT SUMMARY

 **Site: 101 [2025 AM (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 210           | 2.0  | 228           | 2.0  | 0.551     | 12.9        | LOS B            | 5.3               | 134.8     | 0.84      | 0.89                | 1.10             | 30.5        |
| 18                           | R2   | 185           | 2.0  | 201           | 2.0  | 0.551     | 12.9        | LOS B            | 5.3               | 134.8     | 0.84      | 0.89                | 1.10             | 29.5        |
| Approach                     |      | 395           | 2.0  | 429           | 2.0  | 0.551     | 12.9        | LOS B            | 5.3               | 134.8     | 0.84      | 0.89                | 1.10             | 30.0        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 1                            | L2   | 62            | 2.0  | 67            | 2.0  | 1.034     | 57.3        | LOS F            | 65.7              | 1668.5    | 1.00      | 1.88                | 3.10             | 19.7        |
| 6                            | T1   | 911           | 2.0  | 990           | 2.0  | 1.034     | 57.3        | LOS F            | 65.7              | 1668.5    | 1.00      | 1.88                | 3.10             | 19.7        |
| Approach                     |      | 973           | 2.0  | 1058          | 2.0  | 1.034     | 57.3        | LOS F            | 65.7              | 1668.5    | 1.00      | 1.88                | 3.10             | 19.7        |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 2                            | T1   | 518           | 2.0  | 563           | 2.0  | 0.529     | 8.9         | LOS A            | 5.4               | 137.4     | 0.42      | 0.20                | 0.42             | 33.8        |
| 12                           | R2   | 70            | 2.0  | 76            | 2.0  | 0.529     | 8.9         | LOS A            | 5.4               | 137.4     | 0.42      | 0.20                | 0.42             | 32.7        |
| Approach                     |      | 588           | 2.0  | 639           | 2.0  | 0.529     | 8.9         | LOS A            | 5.4               | 137.4     | 0.42      | 0.20                | 0.42             | 33.7        |
| All Vehicles                 |      | 1956          | 2.0  | 2126          | 2.0  | 1.034     | 33.8        | LOS D            | 65.7              | 1668.5    | 0.79      | 1.18                | 1.89             | 24.4        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Multilane (3 drives)\Existing.sip9

# MOVEMENT SUMMARY

 **Site: 101 [2025 PM (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 141           | 2.0    | 153           | 2.0    | 0.634     | 24.0        | LOS C            | 7.0               | 177.1     | 1.00      | 1.19                | 1.52             | 26.6        |
| 18                           | R2   | 124           | 2.0    | 135           | 2.0    | 0.634     | 24.0        | LOS C            | 7.0               | 177.1     | 1.00      | 1.19                | 1.52             | 25.8        |
| Approach                     |      | 265           | 2.0    | 288           | 2.0    | 0.634     | 24.0        | LOS C            | 7.0               | 177.1     | 1.00      | 1.19                | 1.52             | 26.2        |
| East: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1                            | L2   | 208           | 2.0    | 226           | 2.0    | 0.667     | 12.9        | LOS B            | 7.5               | 191.0     | 0.72      | 0.47                | 0.72             | 31.2        |
| 6                            | T1   | 466           | 2.0    | 507           | 2.0    | 0.667     | 12.9        | LOS B            | 7.5               | 191.0     | 0.72      | 0.47                | 0.72             | 31.1        |
| Approach                     |      | 674           | 2.0    | 733           | 2.0    | 0.667     | 12.9        | LOS B            | 7.5               | 191.0     | 0.72      | 0.47                | 0.72             | 31.2        |
| West: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                            | T1   | 1035          | 2.0    | 1125          | 2.0    | 1.334     | 171.5       | LOS F            | 153.3             | 3893.3    | 1.00      | 3.41                | 5.97             | 9.9         |
| 12                           | R2   | 236           | 2.0    | 257           | 2.0    | 1.334     | 171.5       | LOS F            | 153.3             | 3893.3    | 1.00      | 3.41                | 5.97             | 9.8         |
| Approach                     |      | 1271          | 2.0    | 1382          | 2.0    | 1.334     | 171.5       | LOS F            | 153.3             | 3893.3    | 1.00      | 3.41                | 5.97             | 9.9         |
| All Vehicles                 |      | 2210          | 2.0    | 2402          | 2.0    | 1.334     | 105.4       | LOS F            | 153.3             | 3893.3    | 0.91      | 2.25                | 3.83             | 13.8        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Multilane (3 drives)\Existing.sip9

# MOVEMENT SUMMARY

 **Site: 101 [2030 AM (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 265           | 2.0  | 288           | 2.0  | 0.710     | 19.0        | LOS C            | 10.1              | 255.6     | 0.95      | 1.18                | 1.59             | 28.2        |
| 18                           | R2   | 233           | 2.0  | 253           | 2.0  | 0.710     | 19.0        | LOS C            | 10.1              | 255.6     | 0.95      | 1.18                | 1.59             | 27.4        |
| Approach                     |      | 498           | 2.0  | 541           | 2.0  | 0.710     | 19.0        | LOS C            | 10.1              | 255.6     | 0.95      | 1.18                | 1.59             | 27.8        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 1                            | L2   | 80            | 2.0  | 87            | 2.0  | 1.175     | 107.1       | LOS F            | 95.7              | 2430.8    | 1.00      | 2.76                | 4.90             | 13.8        |
| 6                            | T1   | 979           | 2.0  | 1064          | 2.0  | 1.175     | 107.1       | LOS F            | 95.7              | 2430.8    | 1.00      | 2.76                | 4.90             | 13.8        |
| Approach                     |      | 1059          | 2.0  | 1151          | 2.0  | 1.175     | 107.1       | LOS F            | 95.7              | 2430.8    | 1.00      | 2.76                | 4.90             | 13.8        |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 2                            | T1   | 557           | 2.0  | 605           | 2.0  | 0.577     | 9.8         | LOS A            | 6.3               | 160.2     | 0.48      | 0.24                | 0.48             | 33.4        |
| 12                           | R2   | 90            | 2.0  | 98            | 2.0  | 0.577     | 9.8         | LOS A            | 6.3               | 160.2     | 0.48      | 0.24                | 0.48             | 32.3        |
| Approach                     |      | 647           | 2.0  | 703           | 2.0  | 0.577     | 9.8         | LOS A            | 6.3               | 160.2     | 0.48      | 0.24                | 0.48             | 33.2        |
| All Vehicles                 |      | 2204          | 2.0  | 2396          | 2.0  | 1.175     | 58.6        | LOS F            | 95.7              | 2430.8    | 0.84      | 1.66                | 2.85             | 19.3        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2030 PM (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 176           | 2.0    | 191           | 2.0    | 0.702     | 25.4        | LOS D            | 8.9               | 225.7     | 1.00      | 1.25                | 1.67             | 26.2        |
| 18                           | R2   | 154           | 2.0    | 167           | 2.0    | 0.702     | 25.4        | LOS D            | 8.9               | 225.7     | 1.00      | 1.25                | 1.67             | 25.4        |
| Approach                     |      | 330           | 2.0    | 359           | 2.0    | 0.702     | 25.4        | LOS D            | 8.9               | 225.7     | 1.00      | 1.25                | 1.67             | 25.8        |
| East: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1                            | L2   | 253           | 2.0    | 275           | 2.0    | 0.764     | 17.1        | LOS C            | 15.9              | 402.9     | 0.88      | 0.79                | 1.17             | 29.5        |
| 6                            | T1   | 501           | 2.0    | 545           | 2.0    | 0.764     | 17.1        | LOS C            | 15.9              | 402.9     | 0.88      | 0.79                | 1.17             | 29.4        |
| Approach                     |      | 754           | 2.0    | 820           | 2.0    | 0.764     | 17.1        | LOS C            | 15.9              | 402.9     | 0.88      | 0.79                | 1.17             | 29.4        |
| West: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                            | T1   | 1113          | 2.0    | 1210          | 2.0    | 1.531     | 257.7       | LOS F            | 203.8             | 5177.6    | 1.00      | 4.39                | 8.10             | 7.2         |
| 12                           | R2   | 288           | 2.0    | 313           | 2.0    | 1.531     | 257.7       | LOS F            | 203.8             | 5177.6    | 1.00      | 4.39                | 8.10             | 7.1         |
| Approach                     |      | 1401          | 2.0    | 1523          | 2.0    | 1.531     | 257.7       | LOS F            | 203.8             | 5177.6    | 1.00      | 4.39                | 8.10             | 7.2         |
| All Vehicles                 |      | 2485          | 2.0    | 2701          | 2.0    | 1.531     | 153.8       | LOS F            | 203.8             | 5177.6    | 0.96      | 2.88                | 5.15             | 10.7        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2035 AM (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 329           | 2.0    | 358           | 2.0    | 0.896     | 35.7        | LOS E            | 21.8              | 553.9     | 1.00      | 1.61                | 2.53             | 23.4        |
| 18                           | R2   | 290           | 2.0    | 315           | 2.0    | 0.896     | 35.7        | LOS E            | 21.8              | 553.9     | 1.00      | 1.61                | 2.53             | 22.8        |
| Approach                     |      | 619           | 2.0    | 673           | 2.0    | 0.896     | 35.7        | LOS E            | 21.8              | 553.9     | 1.00      | 1.61                | 2.53             | 23.1        |
| East: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1                            | L2   | 98            | 2.0    | 107           | 2.0    | 1.328     | 170.6       | LOS F            | 131.8             | 3348.7    | 1.00      | 3.68                | 6.97             | 10.0        |
| 6                            | T1   | 1057          | 2.0    | 1149          | 2.0    | 1.328     | 170.6       | LOS F            | 131.8             | 3348.7    | 1.00      | 3.68                | 6.97             | 10.0        |
| Approach                     |      | 1155          | 2.0    | 1255          | 2.0    | 1.328     | 170.6       | LOS F            | 131.8             | 3348.7    | 1.00      | 3.68                | 6.97             | 10.0        |
| West: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                            | T1   | 601           | 2.0    | 653           | 2.0    | 0.621     | 10.6        | LOS B            | 7.3               | 184.7     | 0.52      | 0.27                | 0.52             | 33.0        |
| 12                           | R2   | 111           | 2.0    | 121           | 2.0    | 0.621     | 10.6        | LOS B            | 7.3               | 184.7     | 0.52      | 0.27                | 0.52             | 31.9        |
| Approach                     |      | 712           | 2.0    | 774           | 2.0    | 0.621     | 10.6        | LOS B            | 7.3               | 184.7     | 0.52      | 0.27                | 0.52             | 32.8        |
| All Vehicles                 |      | 2486          | 2.0    | 2702          | 2.0    | 1.328     | 91.2        | LOS F            | 131.8             | 3348.7    | 0.86      | 2.19                | 4.02             | 15.1        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2035 PM (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 218           | 2.0  | 237           | 2.0  | 0.756     | 26.3        | LOS D            | 11.4              | 288.6     | 1.00      | 1.32                | 1.82             | 25.9        |
| 18                           | R2   | 192           | 2.0  | 209           | 2.0  | 0.756     | 26.3        | LOS D            | 11.4              | 288.6     | 1.00      | 1.32                | 1.82             | 25.2        |
| Approach                     |      | 410           | 2.0  | 446           | 2.0  | 0.756     | 26.3        | LOS D            | 11.4              | 288.6     | 1.00      | 1.32                | 1.82             | 25.5        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 1                            | L2   | 320           | 2.0  | 348           | 2.0  | 0.882     | 26.6        | LOS D            | 31.8              | 806.7     | 1.00      | 1.25                | 1.92             | 26.3        |
| 6                            | T1   | 541           | 2.0  | 588           | 2.0  | 0.882     | 26.6        | LOS D            | 31.8              | 806.7     | 1.00      | 1.25                | 1.92             | 26.2        |
| Approach                     |      | 861           | 2.0  | 936           | 2.0  | 0.882     | 26.6        | LOS D            | 31.8              | 806.7     | 1.00      | 1.25                | 1.92             | 26.2        |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 2                            | T1   | 1201          | 2.0  | 1305          | 2.0  | 1.791     | 373.0       | LOS F            | 267.8             | 6802.9    | 1.00      | 5.44                | 10.63            | 5.3         |
| 12                           | R2   | 363           | 2.0  | 395           | 2.0  | 1.791     | 373.0       | LOS F            | 267.8             | 6802.9    | 1.00      | 5.44                | 10.63            | 5.2         |
| Approach                     |      | 1564          | 2.0  | 1700          | 2.0  | 1.791     | 373.0       | LOS F            | 267.8             | 6802.9    | 1.00      | 5.44                | 10.63            | 5.3         |
| All Vehicles                 |      | 2835          | 2.0  | 3082          | 2.0  | 1.791     | 217.7       | LOS F            | 267.8             | 6802.9    | 1.00      | 3.57                | 6.71             | 8.2         |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Multilane (3 drives)\Existing.sip9

## MULTILANE ROUNDABOUT

# MOVEMENT SUMMARY

 **Site: 101 [2025 AM (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 210           | 2.0  | 228           | 2.0  | 0.224     | 5.7         | LOS A            | 1.0               | 24.2      | 0.50      | 0.44                | 0.50             | 32.7        |
| 18                           | R2   | 185           | 2.0  | 201           | 2.0  | 0.219     | 6.1         | LOS A            | 0.9               | 23.2      | 0.51      | 0.46                | 0.51             | 33.8        |
| Approach                     |      | 395           | 2.0  | 429           | 2.0  | 0.224     | 5.9         | LOS A            | 1.0               | 24.2      | 0.51      | 0.45                | 0.51             | 33.2        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 1                            | L2   | 62            | 2.0  | 67            | 2.0  | 0.463     | 8.3         | LOS A            | 3.1               | 78.3      | 0.51      | 0.37                | 0.51             | 33.9        |
| 6                            | T1   | 911           | 2.0  | 990           | 2.0  | 0.463     | 8.2         | LOS A            | 3.1               | 78.9      | 0.51      | 0.36                | 0.51             | 34.0        |
| Approach                     |      | 973           | 2.0  | 1058          | 2.0  | 0.463     | 8.2         | LOS A            | 3.1               | 78.9      | 0.51      | 0.36                | 0.51             | 34.0        |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 2                            | T1   | 518           | 2.0  | 563           | 2.0  | 0.247     | 4.9         | LOS A            | 1.3               | 34.3      | 0.22      | 0.10                | 0.22             | 35.9        |
| 12                           | R2   | 70            | 2.0  | 76            | 2.0  | 0.247     | 4.9         | LOS A            | 1.3               | 34.3      | 0.22      | 0.10                | 0.22             | 34.6        |
| Approach                     |      | 588           | 2.0  | 639           | 2.0  | 0.247     | 4.9         | LOS A            | 1.3               | 34.3      | 0.22      | 0.10                | 0.22             | 35.7        |
| All Vehicles                 |      | 1956          | 2.0  | 2126          | 2.0  | 0.463     | 6.7         | LOS A            | 3.1               | 78.9      | 0.42      | 0.30                | 0.42             | 34.3        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Multilane (3 drives)\Four lane.sip9

# MOVEMENT SUMMARY

 **Site: 101 [2025 PM (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 141           | 2.0  | 153           | 2.0  | 0.214     | 7.5         | LOS A            | 1.0               | 26.5      | 0.71      | 0.71                | 0.71             | 31.9        |
| 18                           | R2   | 124           | 2.0  | 135           | 2.0  | 0.226     | 9.0         | LOS A            | 1.0               | 26.5      | 0.71      | 0.71                | 0.71             | 32.4        |
| Approach                     |      | 265           | 2.0  | 288           | 2.0  | 0.226     | 8.2         | LOS A            | 1.0               | 26.5      | 0.71      | 0.71                | 0.71             | 32.1        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 1                            | L2   | 208           | 2.0  | 226           | 2.0  | 0.307     | 6.0         | LOS A            | 1.8               | 46.5      | 0.38      | 0.23                | 0.38             | 33.6        |
| 6                            | T1   | 466           | 2.0  | 507           | 2.0  | 0.307     | 5.9         | LOS A            | 1.8               | 46.8      | 0.38      | 0.23                | 0.38             | 34.8        |
| Approach                     |      | 674           | 2.0  | 733           | 2.0  | 0.307     | 5.9         | LOS A            | 1.8               | 46.8      | 0.38      | 0.23                | 0.38             | 34.4        |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 2                            | T1   | 1035          | 2.0  | 1125          | 2.0  | 0.605     | 10.9        | LOS B            | 4.8               | 122.1     | 0.59      | 0.43                | 0.59             | 32.8        |
| 12                           | R2   | 236           | 2.0  | 257           | 2.0  | 0.605     | 10.7        | LOS B            | 4.7               | 118.7     | 0.58      | 0.42                | 0.58             | 31.8        |
| Approach                     |      | 1271          | 2.0  | 1382          | 2.0  | 0.605     | 10.9        | LOS B            | 4.8               | 122.1     | 0.59      | 0.43                | 0.59             | 32.6        |
| All Vehicles                 |      | 2210          | 2.0  | 2402          | 2.0  | 0.605     | 9.0         | LOS A            | 4.8               | 122.1     | 0.54      | 0.40                | 0.54             | 33.1        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2030 AM (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 265           | 2.0    | 288           | 2.0    | 0.283     | 6.4         | LOS A            | 1.3               | 32.3      | 0.54      | 0.49                | 0.54             | 32.4        |
| 18                           | R2   | 233           | 2.0    | 253           | 2.0    | 0.281     | 7.0         | LOS A            | 1.2               | 31.3      | 0.55      | 0.52                | 0.55             | 33.4        |
| Approach                     |      | 498           | 2.0    | 541           | 2.0    | 0.283     | 6.6         | LOS A            | 1.3               | 32.3      | 0.54      | 0.50                | 0.54             | 32.8        |
| East: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1                            | L2   | 80            | 2.0    | 87            | 2.0    | 0.523     | 9.6         | LOS A            | 3.7               | 93.7      | 0.60      | 0.47                | 0.60             | 33.2        |
| 6                            | T1   | 979           | 2.0    | 1064          | 2.0    | 0.523     | 9.4         | LOS A            | 3.7               | 95.2      | 0.60      | 0.46                | 0.60             | 33.3        |
| Approach                     |      | 1059          | 2.0    | 1151          | 2.0    | 0.523     | 9.4         | LOS A            | 3.7               | 95.2      | 0.60      | 0.46                | 0.60             | 33.3        |
| West: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                            | T1   | 557           | 2.0    | 605           | 2.0    | 0.273     | 5.2         | LOS A            | 1.6               | 40.0      | 0.27      | 0.13                | 0.27             | 35.7        |
| 12                           | R2   | 90            | 2.0    | 98            | 2.0    | 0.273     | 5.1         | LOS A            | 1.6               | 40.0      | 0.27      | 0.13                | 0.27             | 34.4        |
| Approach                     |      | 647           | 2.0    | 703           | 2.0    | 0.273     | 5.2         | LOS A            | 1.6               | 40.0      | 0.27      | 0.13                | 0.27             | 35.5        |
| All Vehicles                 |      | 2204          | 2.0    | 2396          | 2.0    | 0.523     | 7.6         | LOS A            | 3.7               | 95.2      | 0.49      | 0.37                | 0.49             | 33.8        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2030 PM (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 176           | 2.0  | 191           | 2.0  | 0.287     | 9.0         | LOS A            | 1.5               | 38.4      | 0.77      | 0.77                | 0.77             | 31.3        |
| 18                           | R2   | 154           | 2.0  | 167           | 2.0  | 0.311     | 11.3        | LOS B            | 1.6               | 39.6      | 0.77      | 0.78                | 0.80             | 31.3        |
| Approach                     |      | 330           | 2.0  | 359           | 2.0  | 0.311     | 10.1        | LOS B            | 1.6               | 39.6      | 0.77      | 0.78                | 0.79             | 31.3        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 1                            | L2   | 253           | 2.0  | 275           | 2.0  | 0.351     | 6.6         | LOS A            | 2.2               | 55.9      | 0.45      | 0.29                | 0.45             | 33.1        |
| 6                            | T1   | 501           | 2.0  | 545           | 2.0  | 0.351     | 6.4         | LOS A            | 2.2               | 56.6      | 0.44      | 0.29                | 0.44             | 34.6        |
| Approach                     |      | 754           | 2.0  | 820           | 2.0  | 0.351     | 6.5         | LOS A            | 2.2               | 56.6      | 0.44      | 0.29                | 0.44             | 34.1        |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 2                            | T1   | 1113          | 2.0  | 1210          | 2.0  | 0.684     | 13.4        | LOS B            | 9.6               | 244.6     | 0.71      | 0.69                | 0.98             | 31.7        |
| 12                           | R2   | 288           | 2.0  | 313           | 2.0  | 0.684     | 13.0        | LOS B            | 9.5               | 241.0     | 0.70      | 0.67                | 0.95             | 30.7        |
| Approach                     |      | 1401          | 2.0  | 1523          | 2.0  | 0.684     | 13.3        | LOS B            | 9.6               | 244.6     | 0.70      | 0.69                | 0.97             | 31.5        |
| All Vehicles                 |      | 2485          | 2.0  | 2701          | 2.0  | 0.684     | 10.8        | LOS B            | 9.6               | 244.6     | 0.63      | 0.58                | 0.79             | 32.2        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2035 AM (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 329           | 2.0    | 358           | 2.0    | 0.345     | 7.0         | LOS A            | 1.7               | 42.0      | 0.58      | 0.54                | 0.58             | 32.1        |
| 18                           | R2   | 290           | 2.0    | 315           | 2.0    | 0.352     | 8.0         | LOS A            | 1.6               | 41.7      | 0.60      | 0.58                | 0.60             | 32.9        |
| Approach                     |      | 619           | 2.0    | 673           | 2.0    | 0.352     | 7.5         | LOS A            | 1.7               | 42.0      | 0.59      | 0.56                | 0.59             | 32.4        |
| East: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1                            | L2   | 98            | 2.0    | 107           | 2.0    | 0.588     | 11.4        | LOS B            | 6.0               | 152.8     | 0.71      | 0.67                | 0.89             | 32.3        |
| 6                            | T1   | 1057          | 2.0    | 1149          | 2.0    | 0.588     | 11.0        | LOS B            | 6.0               | 152.8     | 0.70      | 0.65                | 0.86             | 32.6        |
| Approach                     |      | 1155          | 2.0    | 1255          | 2.0    | 0.588     | 11.0        | LOS B            | 6.0               | 152.8     | 0.70      | 0.65                | 0.86             | 32.6        |
| West: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                            | T1   | 601           | 2.0    | 653           | 2.0    | 0.300     | 5.5         | LOS A            | 1.8               | 46.5      | 0.31      | 0.16                | 0.31             | 35.5        |
| 12                           | R2   | 111           | 2.0    | 121           | 2.0    | 0.300     | 5.4         | LOS A            | 1.8               | 46.5      | 0.31      | 0.16                | 0.31             | 34.3        |
| Approach                     |      | 712           | 2.0    | 774           | 2.0    | 0.300     | 5.5         | LOS A            | 1.8               | 46.5      | 0.31      | 0.16                | 0.31             | 35.3        |
| All Vehicles                 |      | 2486          | 2.0    | 2702          | 2.0    | 0.588     | 8.6         | LOS A            | 6.0               | 152.8     | 0.56      | 0.49                | 0.64             | 33.3        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Multilane (3 drives)\Four lane.sip9

# MOVEMENT SUMMARY

 **Site: 101 [2035 PM (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 218           | 2.0  | 237           | 2.0  | 0.394     | 11.9        | LOS B            | 2.5               | 64.2      | 0.86      | 0.91                | 1.00             | 30.1        |
| 18                           | R2   | 192           | 2.0  | 209           | 2.0  | 0.446     | 16.0        | LOS C            | 2.8               | 70.9      | 0.86      | 0.94                | 1.12             | 29.4        |
| Approach                     |      | 410           | 2.0  | 446           | 2.0  | 0.446     | 13.8        | LOS B            | 2.8               | 70.9      | 0.86      | 0.92                | 1.06             | 29.8        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 1                            | L2   | 320           | 2.0  | 348           | 2.0  | 0.409     | 7.6         | LOS A            | 2.7               | 69.8      | 0.53      | 0.38                | 0.53             | 32.5        |
| 6                            | T1   | 541           | 2.0  | 588           | 2.0  | 0.409     | 7.2         | LOS A            | 2.8               | 71.4      | 0.52      | 0.36                | 0.52             | 34.2        |
| Approach                     |      | 861           | 2.0  | 936           | 2.0  | 0.409     | 7.4         | LOS A            | 2.8               | 71.4      | 0.52      | 0.37                | 0.52             | 33.5        |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 2                            | T1   | 1201          | 2.0  | 1305          | 2.0  | 0.792     | 18.9        | LOS C            | 17.3              | 440.6     | 0.88      | 1.07                | 1.59             | 29.4        |
| 12                           | R2   | 363           | 2.0  | 395           | 2.0  | 0.792     | 18.1        | LOS C            | 17.3              | 440.6     | 0.87      | 1.05                | 1.54             | 28.8        |
| Approach                     |      | 1564          | 2.0  | 1700          | 2.0  | 0.792     | 18.7        | LOS C            | 17.3              | 440.6     | 0.88      | 1.07                | 1.58             | 29.3        |
| All Vehicles                 |      | 2835          | 2.0  | 3082          | 2.0  | 0.792     | 14.6        | LOS B            | 17.3              | 440.6     | 0.77      | 0.83                | 1.18             | 30.5        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Multilane (3 drives)\Four lane.sip9

## APPENDIX N

CAPACITY ANALYSIS REPORTS, DRIVEWAY #1 CONSOLIDATED IMPROVEMENTS



## **A. TRAFFIC SIGNAL**

## **WITHOUT WIDENING**



# HCM 6th Signalized Intersection Summary

## 1: Dana Circle & Old Cornelia Highway

2025 - Consolidated Traffic Signal  
AM Peak Hour

|                              |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Movement                     | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations          | ↑                                                                                 | ↖                                                                                 | ↗                                                                                 | ↑                                                                                 | ↖                                                                                 | ↗                                                                                 |
| Traffic Volume (veh/h)       | 448                                                                               | 146                                                                               | 109                                                                               | 850                                                                               | 279                                                                               | 248                                                                               |
| Future Volume (veh/h)        | 448                                                                               | 146                                                                               | 109                                                                               | 850                                                                               | 279                                                                               | 248                                                                               |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Ped-Bike Adj(A_pbT)          |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                | No                                                                                |                                                                                   |
| Adj Sat Flow, veh/h/ln       | 1796                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              |
| Adj Flow Rate, veh/h         | 487                                                                               | 0                                                                                 | 118                                                                               | 924                                                                               | 303                                                                               | 0                                                                                 |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Percent Heavy Veh, %         | 7                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Cap, veh/h                   | 963                                                                               |                                                                                   | 550                                                                               | 1245                                                                              | 364                                                                               |                                                                                   |
| Arrive On Green              | 0.54                                                                              | 0.00                                                                              | 0.06                                                                              | 0.67                                                                              | 0.20                                                                              | 0.00                                                                              |
| Sat Flow, veh/h              | 1796                                                                              | 1585                                                                              | 1781                                                                              | 1870                                                                              | 1781                                                                              | 1585                                                                              |
| Grp Volume(v), veh/h         | 487                                                                               | 0                                                                                 | 118                                                                               | 924                                                                               | 303                                                                               | 0                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1796                                                                              | 1585                                                                              | 1781                                                                              | 1870                                                                              | 1781                                                                              | 1585                                                                              |
| Q Serve(g_s), s              | 12.0                                                                              | 0.0                                                                               | 1.8                                                                               | 22.6                                                                              | 11.3                                                                              | 0.0                                                                               |
| Cycle Q Clear(g_c), s        | 12.0                                                                              | 0.0                                                                               | 1.8                                                                               | 22.6                                                                              | 11.3                                                                              | 0.0                                                                               |
| Prop In Lane                 |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Lane Grp Cap(c), veh/h       | 963                                                                               |                                                                                   | 550                                                                               | 1245                                                                              | 364                                                                               |                                                                                   |
| V/C Ratio(X)                 | 0.51                                                                              |                                                                                   | 0.21                                                                              | 0.74                                                                              | 0.83                                                                              |                                                                                   |
| Avail Cap(c_a), veh/h        | 1170                                                                              |                                                                                   | 612                                                                               | 1526                                                                              | 630                                                                               |                                                                                   |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              |
| Uniform Delay (d), s/veh     | 10.2                                                                              | 0.0                                                                               | 6.7                                                                               | 7.6                                                                               | 26.4                                                                              | 0.0                                                                               |
| Incr Delay (d2), s/veh       | 0.4                                                                               | 0.0                                                                               | 0.2                                                                               | 1.6                                                                               | 5.0                                                                               | 0.0                                                                               |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |
| %ile BackOfQ(95%),veh/ln     | 6.7                                                                               | 0.0                                                                               | 0.9                                                                               | 9.7                                                                               | 8.8                                                                               | 0.0                                                                               |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| LnGrp Delay(d),s/veh         | 10.6                                                                              | 0.0                                                                               | 6.9                                                                               | 9.2                                                                               | 31.4                                                                              | 0.0                                                                               |
| LnGrp LOS                    | B                                                                                 |                                                                                   | A                                                                                 | A                                                                                 | C                                                                                 |                                                                                   |
| Approach Vol, veh/h          | 487                                                                               | A                                                                                 |                                                                                   | 1042                                                                              | 303                                                                               | A                                                                                 |
| Approach Delay, s/veh        | 10.6                                                                              |                                                                                   |                                                                                   | 9.0                                                                               | 31.4                                                                              |                                                                                   |
| Approach LOS                 | B                                                                                 |                                                                                   |                                                                                   | A                                                                                 | C                                                                                 |                                                                                   |
| Timer - Assigned Phs         | 2                                                                                 |                                                                                   | 5                                                                                 |                                                                                   | 6                                                                                 | 8                                                                                 |
| Phs Duration (G+Y+Rc), s     | 50.6                                                                              |                                                                                   | 9.0                                                                               |                                                                                   | 41.6                                                                              | 18.7                                                                              |
| Change Period (Y+Rc), s      | 4.5                                                                               |                                                                                   | 4.5                                                                               |                                                                                   | 4.5                                                                               | 4.5                                                                               |
| Max Green Setting (Gmax), s  | 56.5                                                                              |                                                                                   | 6.9                                                                               |                                                                                   | 45.1                                                                              | 24.5                                                                              |
| Max Q Clear Time (g_c+I1), s | 24.6                                                                              |                                                                                   | 3.8                                                                               |                                                                                   | 14.0                                                                              | 13.3                                                                              |
| Green Ext Time (p_c), s      | 21.5                                                                              |                                                                                   | 0.1                                                                               |                                                                                   | 9.6                                                                               | 0.9                                                                               |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th Ctrl Delay           | 13.1                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

### Notes

Unsignalized Delay for [NBR, EBR, WBT] is excluded from calculations of the approach delay and intersection delay.

# HCM 6th Signalized Intersection Summary

## 1: Dana Circle & Old Cornelia Highway

2025 - Consolidated Traffic Signal  
PM Peak Hour

|                                                                                                                    | →    | ↘     | ↙    | ←    | ↖    | ↗    |
|--------------------------------------------------------------------------------------------------------------------|------|-------|------|------|------|------|
| Movement                                                                                                           | EBT  | EBR   | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations                                                                                                | ↑    | ↑     | ↑    | ↑    | ↑    | ↑    |
| Traffic Volume (veh/h)                                                                                             | 1008 | 236   | 211  | 455  | 156  | 136  |
| Future Volume (veh/h)                                                                                              | 1008 | 236   | 211  | 455  | 156  | 136  |
| Initial Q (Qb), veh                                                                                                | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)                                                                                                |      | 1.00  | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj                                                                                                   | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach                                                                                              | No   |       |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln                                                                                             | 1885 | 1870  | 1870 | 1885 | 1870 | 1870 |
| Adj Flow Rate, veh/h                                                                                               | 1120 | 0     | 234  | 506  | 173  | 0    |
| Peak Hour Factor                                                                                                   | 0.90 | 0.90  | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, %                                                                                               | 1    | 2     | 2    | 1    | 2    | 2    |
| Cap, veh/h                                                                                                         | 1350 |       | 309  | 1524 | 205  |      |
| Arrive On Green                                                                                                    | 0.72 | 0.00  | 0.05 | 0.81 | 0.12 | 0.00 |
| Sat Flow, veh/h                                                                                                    | 1885 | 1585  | 1781 | 1885 | 1781 | 1585 |
| Grp Volume(v), veh/h                                                                                               | 1120 | 0     | 234  | 506  | 173  | 0    |
| Grp Sat Flow(s),veh/h/ln                                                                                           | 1885 | 1585  | 1781 | 1885 | 1781 | 1585 |
| Q Serve(g_s), s                                                                                                    | 49.0 | 0.0   | 3.8  | 8.3  | 11.2 | 0.0  |
| Cycle Q Clear(g_c), s                                                                                              | 49.0 | 0.0   | 3.8  | 8.3  | 11.2 | 0.0  |
| Prop In Lane                                                                                                       |      | 1.00  | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h                                                                                             | 1350 |       | 309  | 1524 | 205  |      |
| V/C Ratio(X)                                                                                                       | 0.83 |       | 0.76 | 0.33 | 0.84 |      |
| Avail Cap(c_a), veh/h                                                                                              | 1495 |       | 537  | 1911 | 325  |      |
| HCM Platoon Ratio                                                                                                  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)                                                                                                 | 1.00 | 0.00  | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh                                                                                           | 11.7 | 0.0   | 23.3 | 3.0  | 51.1 | 0.0  |
| Incr Delay (d2), s/veh                                                                                             | 3.8  | 0.0   | 3.8  | 0.1  | 11.0 | 0.0  |
| Initial Q Delay(d3),s/veh                                                                                          | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln                                                                                           | 24.0 | 0.0   | 8.6  | 3.5  | 9.6  | 0.0  |
| Unsig. Movement Delay, s/veh                                                                                       |      |       |      |      |      |      |
| LnGrp Delay(d),s/veh                                                                                               | 15.5 | 0.0   | 27.1 | 3.1  | 62.1 | 0.0  |
| LnGrp LOS                                                                                                          | B    |       | C    | A    | E    |      |
| Approach Vol, veh/h                                                                                                | 1120 | A     |      | 740  | 173  | A    |
| Approach Delay, s/veh                                                                                              | 15.5 |       |      | 10.7 | 62.1 |      |
| Approach LOS                                                                                                       | B    |       |      | B    | E    |      |
| Timer - Assigned Phs                                                                                               |      | 2     |      |      | 5    | 6    |
| Phs Duration (G+Y+Rc), s                                                                                           |      | 99.8  |      |      | 10.9 | 88.9 |
| Change Period (Y+Rc), s                                                                                            |      | 4.5   |      |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s                                                                                        |      | 119.5 |      |      | 21.5 | 93.5 |
| Max Q Clear Time (g_c+I1), s                                                                                       |      | 10.3  |      |      | 5.8  | 51.0 |
| Green Ext Time (p_c), s                                                                                            |      | 13.1  |      |      | 0.6  | 33.4 |
|                                                                                                                    |      |       |      |      |      | 0.3  |
| Intersection Summary                                                                                               |      |       |      |      |      |      |
| HCM 6th Ctrl Delay                                                                                                 |      |       | 17.7 |      |      |      |
| HCM 6th LOS                                                                                                        |      |       | B    |      |      |      |
| Notes                                                                                                              |      |       |      |      |      |      |
| Unsignalized Delay for [NBR, EBR, WBT] is excluded from calculations of the approach delay and intersection delay. |      |       |      |      |      |      |

# HCM 6th Signalized Intersection Summary

## 1: Dana Circle & Old Cornelia Highway

2030 - Consolidated Traffic Signal  
AM Peak Hour

|                              | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|------------------------------|------|------|------|------|------|------|
| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations          | ↑    | ↗    | ↙    | ↑    | ↙    | ↗    |
| Traffic Volume (veh/h)       | 481  | 169  | 130  | 914  | 333  | 301  |
| Future Volume (veh/h)        | 481  | 169  | 130  | 914  | 333  | 301  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1796 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 523  | 0    | 141  | 993  | 362  | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 7    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 960  |      | 502  | 1221 | 413  |      |
| Arrive On Green              | 0.53 | 0.00 | 0.06 | 0.65 | 0.23 | 0.00 |
| Sat Flow, veh/h              | 1796 | 1585 | 1781 | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 523  | 0    | 141  | 993  | 362  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1796 | 1585 | 1781 | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 15.0 | 0.0  | 2.6  | 30.8 | 15.3 | 0.0  |
| Cycle Q Clear(g_c), s        | 15.0 | 0.0  | 2.6  | 30.8 | 15.3 | 0.0  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 960  |      | 502  | 1221 | 413  |      |
| V/C Ratio(X)                 | 0.54 |      | 0.28 | 0.81 | 0.88 |      |
| Avail Cap(c_a), veh/h        | 1035 |      | 551  | 1350 | 557  |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh     | 12.0 | 0.0  | 8.3  | 10.0 | 29.0 | 0.0  |
| Incr Delay (d2), s/veh       | 0.5  | 0.0  | 0.3  | 3.6  | 11.5 | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 8.6  | 0.0  | 1.4  | 14.8 | 12.3 | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 12.5 | 0.0  | 8.6  | 13.7 | 40.4 | 0.0  |
| LnGrp LOS                    | B    |      | A    | B    | D    |      |
| Approach Vol, veh/h          | 523  | A    |      | 1134 | 362  | A    |
| Approach Delay, s/veh        | 12.5 |      |      | 13.0 | 40.4 |      |
| Approach LOS                 | B    |      |      | B    | D    |      |
| Timer - Assigned Phs         | 2    |      | 5    |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     | 55.6 |      | 9.3  |      | 46.4 | 22.7 |
| Change Period (Y+Rc), s      | 4.5  |      | 4.5  |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s  | 56.5 |      | 6.9  |      | 45.1 | 24.5 |
| Max Q Clear Time (g_c+I1), s | 32.8 |      | 4.6  |      | 17.0 | 17.3 |
| Green Ext Time (p_c), s      | 18.4 |      | 0.1  |      | 10.0 | 0.8  |
| Intersection Summary         |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           | 17.8 |      |      |      |      |      |
| HCM 6th LOS                  | B    |      |      |      |      |      |

### Notes

Unsignalized Delay for [NBR, EBR, WBT] is excluded from calculations of the approach delay and intersection delay.

# HCM 6th Signalized Intersection Summary

## 1: Dana Circle & Old Cornelia Highway

2030 - Consolidated Traffic Signal  
PM Peak Hour

|                                                                                                               | →    | ↘     | ↙    | ←    | ↖    | ↗    |
|---------------------------------------------------------------------------------------------------------------|------|-------|------|------|------|------|
| Movement                                                                                                      | EBT  | EBR   | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations                                                                                           | ↑    | ↑     | ↑    | ↑    | ↑    | ↑    |
| Traffic Volume (veh/h)                                                                                        | 1084 | 282   | 256  | 489  | 188  | 167  |
| Future Volume (veh/h)                                                                                         | 1084 | 282   | 256  | 489  | 188  | 167  |
| Initial Q (Qb), veh                                                                                           | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)                                                                                           |      | 1.00  | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj                                                                                              | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach                                                                                         | No   |       |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln                                                                                        | 1885 | 1870  | 1870 | 1885 | 1870 | 1870 |
| Adj Flow Rate, veh/h                                                                                          | 1204 | 0     | 284  | 543  | 209  | 0    |
| Peak Hour Factor                                                                                              | 0.90 | 0.90  | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, %                                                                                          | 1    | 2     | 2    | 1    | 2    | 2    |
| Cap, veh/h                                                                                                    | 1196 |       | 305  | 1524 | 232  |      |
| Arrive On Green                                                                                               | 0.63 | 0.00  | 0.14 | 0.81 | 0.13 | 0.00 |
| Sat Flow, veh/h                                                                                               | 1885 | 1585  | 1781 | 1885 | 1781 | 1585 |
| Grp Volume(v), veh/h                                                                                          | 1204 | 0     | 284  | 543  | 209  | 0    |
| Grp Sat Flow(s),veh/h/ln                                                                                      | 1885 | 1585  | 1781 | 1885 | 1781 | 1585 |
| Q Serve(g_s), s                                                                                               | 93.5 | 0.0   | 19.1 | 11.4 | 17.0 | 0.0  |
| Cycle Q Clear(g_c), s                                                                                         | 93.5 | 0.0   | 19.1 | 11.4 | 17.0 | 0.0  |
| Prop In Lane                                                                                                  |      | 1.00  | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h                                                                                        | 1196 |       | 305  | 1524 | 232  |      |
| V/C Ratio(X)                                                                                                  | 1.01 |       | 0.93 | 0.36 | 0.90 |      |
| Avail Cap(c_a), veh/h                                                                                         | 1196 |       | 309  | 1529 | 260  |      |
| HCM Platoon Ratio                                                                                             | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)                                                                                            | 1.00 | 0.00  | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh                                                                                      | 26.9 | 0.0   | 55.3 | 3.8  | 63.1 | 0.0  |
| Incr Delay (d2), s/veh                                                                                        | 27.7 | 0.0   | 33.7 | 0.1  | 29.3 | 0.0  |
| Initial Q Delay(d3),s/veh                                                                                     | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln                                                                                      | 58.1 | 0.0   | 18.6 | 6.0  | 14.8 | 0.0  |
| Unsig. Movement Delay, s/veh                                                                                  |      |       |      |      |      |      |
| LnGrp Delay(d),s/veh                                                                                          | 54.6 | 0.0   | 89.0 | 3.9  | 92.5 | 0.0  |
| LnGrp LOS                                                                                                     | F    |       | F    | A    | F    |      |
| Approach Vol, veh/h                                                                                           | 1204 | A     |      | 827  | 209  | A    |
| Approach Delay, s/veh                                                                                         | 54.6 |       |      | 33.1 | 92.5 |      |
| Approach LOS                                                                                                  | D    |       |      | C    | F    |      |
| Timer - Assigned Phs                                                                                          |      | 2     |      | 5    | 6    | 8    |
| Phs Duration (G+Y+Rc), s                                                                                      |      | 123.7 |      | 25.7 | 98.0 | 23.7 |
| Change Period (Y+Rc), s                                                                                       |      | 4.5   |      | 4.5  | 4.5  | 4.5  |
| Max Green Setting (Gmax), s                                                                                   |      | 119.5 |      | 21.5 | 93.5 | 21.5 |
| Max Q Clear Time (g_c+I1), s                                                                                  |      | 13.4  |      | 21.1 | 95.5 | 19.0 |
| Green Ext Time (p_c), s                                                                                       |      | 14.6  |      | 0.0  | 0.0  | 0.2  |
| <b>Intersection Summary</b>                                                                                   |      |       |      |      |      |      |
| HCM 6th Ctrl Delay                                                                                            |      |       | 50.2 |      |      |      |
| HCM 6th LOS                                                                                                   |      |       | D    |      |      |      |
| <b>Notes</b>                                                                                                  |      |       |      |      |      |      |
| Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay. |      |       |      |      |      |      |

# HCM 6th Signalized Intersection Summary

## 1: Dana Circle & Old Cornelia Highway

2035 - Consolidated Traffic Signal  
AM Peak Hour

|                                                                                                               | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|---------------------------------------------------------------------------------------------------------------|------|------|------|------|------|------|
| Movement                                                                                                      | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations                                                                                           | ↑    | ↑    | ↑    | ↑    | ↑    | ↑    |
| Traffic Volume (veh/h)                                                                                        | 519  | 194  | 152  | 986  | 395  | 364  |
| Future Volume (veh/h)                                                                                         | 519  | 194  | 152  | 986  | 395  | 364  |
| Initial Q (Qb), veh                                                                                           | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)                                                                                           |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj                                                                                              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach                                                                                         | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln                                                                                        | 1796 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h                                                                                          | 564  | 0    | 165  | 1072 | 429  | 0    |
| Peak Hour Factor                                                                                              | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %                                                                                          | 7    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                                                                                                    | 934  |      | 449  | 1187 | 467  |      |
| Arrive On Green                                                                                               | 0.52 | 0.00 | 0.06 | 0.63 | 0.26 | 0.00 |
| Sat Flow, veh/h                                                                                               | 1796 | 1585 | 1781 | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h                                                                                          | 564  | 0    | 165  | 1072 | 429  | 0    |
| Grp Sat Flow(s),veh/h/ln                                                                                      | 1796 | 1585 | 1781 | 1870 | 1781 | 1585 |
| Q Serve(g_s), s                                                                                               | 19.1 | 0.0  | 3.5  | 42.6 | 20.3 | 0.0  |
| Cycle Q Clear(g_c), s                                                                                         | 19.1 | 0.0  | 3.5  | 42.6 | 20.3 | 0.0  |
| Prop In Lane                                                                                                  |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h                                                                                        | 934  |      | 449  | 1187 | 467  |      |
| V/C Ratio(X)                                                                                                  | 0.60 |      | 0.37 | 0.90 | 0.92 |      |
| Avail Cap(c_a), veh/h                                                                                         | 934  |      | 478  | 1217 | 502  |      |
| HCM Platoon Ratio                                                                                             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)                                                                                            | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh                                                                                      | 14.6 | 0.0  | 10.6 | 13.6 | 31.2 | 0.0  |
| Incr Delay (d2), s/veh                                                                                        | 1.1  | 0.0  | 0.5  | 9.5  | 21.4 | 0.0  |
| Initial Q Delay(d3),s/veh                                                                                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln                                                                                      | 11.2 | 0.0  | 2.0  | 23.0 | 16.9 | 0.0  |
| Unsig. Movement Delay, s/veh                                                                                  |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh                                                                                          | 15.7 | 0.0  | 11.1 | 23.1 | 52.5 | 0.0  |
| LnGrp LOS                                                                                                     | B    |      | B    | C    | D    |      |
| Approach Vol, veh/h                                                                                           | 564  | A    |      | 1237 | 429  | A    |
| Approach Delay, s/veh                                                                                         | 15.7 |      |      | 21.5 | 52.5 |      |
| Approach LOS                                                                                                  | B    |      |      | C    | D    |      |
| Timer - Assigned Phs                                                                                          |      | 2    |      |      | 5    | 6    |
| Phs Duration (G+Y+Rc), s                                                                                      |      | 59.6 |      |      | 10.0 | 49.6 |
| Change Period (Y+Rc), s                                                                                       |      | 4.5  |      |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s                                                                                   |      | 56.5 |      |      | 6.9  | 45.1 |
| Max Q Clear Time (g_c+I1), s                                                                                  |      | 44.6 |      |      | 5.5  | 21.1 |
| Green Ext Time (p_c), s                                                                                       |      | 10.5 |      |      | 0.1  | 10.0 |
|                                                                                                               |      |      |      |      |      | 0.4  |
| <b>Intersection Summary</b>                                                                                   |      |      |      |      |      |      |
| HCM 6th Ctrl Delay                                                                                            |      |      | 26.0 |      |      |      |
| HCM 6th LOS                                                                                                   |      |      | C    |      |      |      |
| <b>Notes</b>                                                                                                  |      |      |      |      |      |      |
| Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay. |      |      |      |      |      |      |

# HCM 6th Signalized Intersection Summary

## 1: Dana Circle & Old Cornelia Highway

2035 - Consolidated Traffic Signal  
PM Peak Hour

|                              | →    | ↘     | ↙     | ←    | ↖     | ↗    |
|------------------------------|------|-------|-------|------|-------|------|
| Movement                     | EBT  | EBR   | WBL   | WBT  | NBL   | NBR  |
| Lane Configurations          | ↑    | ↑     | ↑     | ↑    | ↑     | ↑    |
| Traffic Volume (veh/h)       | 1169 | 348   | 324   | 527  | 227   | 206  |
| Future Volume (veh/h)        | 1169 | 348   | 324   | 527  | 227   | 206  |
| Initial Q (Qb), veh          | 0    | 0     | 0     | 0    | 0     | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00  | 1.00  |      | 1.00  | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00  | 1.00  | 1.00 | 1.00  | 1.00 |
| Work Zone On Approach        | No   |       |       | No   | No    |      |
| Adj Sat Flow, veh/h/ln       | 1885 | 1870  | 1870  | 1885 | 1870  | 1870 |
| Adj Flow Rate, veh/h         | 1299 | 0     | 360   | 586  | 252   | 0    |
| Peak Hour Factor             | 0.90 | 0.90  | 0.90  | 0.90 | 0.90  | 0.90 |
| Percent Heavy Veh, %         | 1    | 2     | 2     | 1    | 2     | 2    |
| Cap, veh/h                   | 1175 |       | 303   | 1502 | 255   |      |
| Arrive On Green              | 0.62 | 0.00  | 0.14  | 0.80 | 0.14  | 0.00 |
| Sat Flow, veh/h              | 1885 | 1585  | 1781  | 1885 | 1781  | 1585 |
| Grp Volume(v), veh/h         | 1299 | 0     | 360   | 586  | 252   | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1885 | 1585  | 1781  | 1885 | 1781  | 1585 |
| Q Serve(g_s), s              | 93.5 | 0.0   | 21.5  | 13.8 | 21.2  | 0.0  |
| Cycle Q Clear(g_c), s        | 93.5 | 0.0   | 21.5  | 13.8 | 21.2  | 0.0  |
| Prop In Lane                 |      | 1.00  | 1.00  |      | 1.00  | 1.00 |
| Lane Grp Cap(c), veh/h       | 1175 |       | 303   | 1502 | 255   |      |
| V/C Ratio(X)                 | 1.11 |       | 1.19  | 0.39 | 0.99  |      |
| Avail Cap(c_a), veh/h        | 1175 |       | 303   | 1502 | 255   |      |
| HCM Platoon Ratio            | 1.00 | 1.00  | 1.00  | 1.00 | 1.00  | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00  | 1.00  | 1.00 | 1.00  | 0.00 |
| Uniform Delay (d), s/veh     | 28.3 | 0.0   | 57.3  | 4.5  | 64.1  | 0.0  |
| Incr Delay (d2), s/veh       | 60.1 | 0.0   | 112.3 | 0.2  | 52.5  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 76.2 | 0.0   | 30.1  | 7.6  | 19.4  | 0.0  |
| Unsig. Movement Delay, s/veh |      |       |       |      |       |      |
| LnGrp Delay(d),s/veh         | 88.4 | 0.0   | 169.6 | 4.7  | 116.6 | 0.0  |
| LnGrp LOS                    | F    |       | F     | A    | F     |      |
| Approach Vol, veh/h          | 1299 | A     |       | 946  | 252   | A    |
| Approach Delay, s/veh        | 88.4 |       |       | 67.4 | 116.6 |      |
| Approach LOS                 | F    |       |       | E    | F     |      |
| Timer - Assigned Phs         |      | 2     |       |      | 5     | 6    |
| Phs Duration (G+Y+Rc), s     |      | 124.0 |       |      | 26.0  | 98.0 |
| Change Period (Y+Rc), s      |      | 4.5   |       |      | 4.5   | 4.5  |
| Max Green Setting (Gmax), s  |      | 119.5 |       |      | 21.5  | 93.5 |
| Max Q Clear Time (g_c+I1), s |      | 15.8  |       |      | 23.5  | 95.5 |
| Green Ext Time (p_c), s      |      | 16.5  |       |      | 0.0   | 0.0  |
| Intersection Summary         |      |       |       |      |       |      |
| HCM 6th Ctrl Delay           |      |       | 83.3  |      |       |      |
| HCM 6th LOS                  |      |       | F     |      |       |      |

### Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.



**WITH WIDENING**

# HCM 6th Signalized Intersection Summary

## 1: Dana Circle & Old Cornelia Highway

2025 - Consolidated Traffic Signal w Widening

AM Peak Hour

|                                                                                                               | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|---------------------------------------------------------------------------------------------------------------|------|------|------|------|------|------|
| Movement                                                                                                      | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations                                                                                           | ↑↑   | ↑    | ↘    | ↑↑   | ↘    | ↑    |
| Traffic Volume (veh/h)                                                                                        | 448  | 146  | 109  | 850  | 279  | 248  |
| Future Volume (veh/h)                                                                                         | 448  | 146  | 109  | 850  | 279  | 248  |
| Initial Q (Qb), veh                                                                                           | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)                                                                                           |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj                                                                                              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach                                                                                         | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln                                                                                        | 1796 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h                                                                                          | 487  | 0    | 118  | 924  | 303  | 0    |
| Peak Hour Factor                                                                                              | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %                                                                                          | 7    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                                                                                                    | 1422 |      | 584  | 2100 | 399  |      |
| Arrive On Green                                                                                               | 0.42 | 0.00 | 0.08 | 0.59 | 0.22 | 0.00 |
| Sat Flow, veh/h                                                                                               | 3503 | 1585 | 1781 | 3647 | 1781 | 1585 |
| Grp Volume(v), veh/h                                                                                          | 487  | 0    | 118  | 924  | 303  | 0    |
| Grp Sat Flow(s),veh/h/ln                                                                                      | 1706 | 1585 | 1781 | 1777 | 1781 | 1585 |
| Q Serve(g_s), s                                                                                               | 4.7  | 0.0  | 1.6  | 7.0  | 7.7  | 0.0  |
| Cycle Q Clear(g_c), s                                                                                         | 4.7  | 0.0  | 1.6  | 7.0  | 7.7  | 0.0  |
| Prop In Lane                                                                                                  |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h                                                                                        | 1422 |      | 584  | 2100 | 399  |      |
| V/C Ratio(X)                                                                                                  | 0.34 |      | 0.20 | 0.44 | 0.76 |      |
| Avail Cap(c_a), veh/h                                                                                         | 1929 |      | 859  | 3177 | 1373 |      |
| HCM Platoon Ratio                                                                                             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)                                                                                            | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh                                                                                      | 9.7  | 0.0  | 6.1  | 5.5  | 17.7 | 0.0  |
| Incr Delay (d2), s/veh                                                                                        | 0.1  | 0.0  | 0.2  | 0.1  | 3.0  | 0.0  |
| Initial Q Delay(d3),s/veh                                                                                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln                                                                                      | 2.2  | 0.0  | 0.6  | 2.2  | 5.7  | 0.0  |
| Unsig. Movement Delay, s/veh                                                                                  |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh                                                                                          | 9.8  | 0.0  | 6.2  | 5.6  | 20.6 | 0.0  |
| LnGrp LOS                                                                                                     | A    |      | A    | A    | C    |      |
| Approach Vol, veh/h                                                                                           | 487  | A    |      | 1042 | 303  | A    |
| Approach Delay, s/veh                                                                                         | 9.8  |      |      | 5.7  | 20.6 |      |
| Approach LOS                                                                                                  | A    |      |      | A    | C    |      |
| Timer - Assigned Phs                                                                                          |      | 2    |      |      | 5    | 6    |
| Phs Duration (G+Y+Rc), s                                                                                      |      | 33.3 |      |      | 8.5  | 24.8 |
| Change Period (Y+Rc), s                                                                                       |      | 4.5  |      |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s                                                                                   |      | 43.5 |      |      | 11.5 | 27.5 |
| Max Q Clear Time (g_c+I1), s                                                                                  |      | 9.0  |      |      | 3.6  | 6.7  |
| Green Ext Time (p_c), s                                                                                       |      | 19.8 |      |      | 0.2  | 7.6  |
|                                                                                                               |      |      |      |      |      | 1.2  |
| Intersection Summary                                                                                          |      |      |      |      |      |      |
| HCM 6th Ctrl Delay                                                                                            |      |      | 9.3  |      |      |      |
| HCM 6th LOS                                                                                                   |      |      | A    |      |      |      |
| Notes                                                                                                         |      |      |      |      |      |      |
| Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay. |      |      |      |      |      |      |

# HCM 6th Signalized Intersection Summary

## 1: Dana Circle & Old Cornelia Highway

2025 - Consolidated Traffic Signal w Widening  
PM Peak Hour

|                              | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|------------------------------|------|------|------|------|------|------|
| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations          | ↑↑   | ↑    | ↘    | ↑↑   | ↘    | ↑    |
| Traffic Volume (veh/h)       | 1008 | 236  | 211  | 455  | 156  | 136  |
| Future Volume (veh/h)        | 1008 | 236  | 211  | 455  | 156  | 136  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1885 | 1870 | 1870 | 1885 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 1120 | 0    | 234  | 506  | 173  | 0    |
| Peak Hour Factor             | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, %         | 1    | 2    | 2    | 1    | 2    | 2    |
| Cap, veh/h                   | 1967 |      | 456  | 2564 | 238  |      |
| Arrive On Green              | 0.55 | 0.00 | 0.09 | 0.72 | 0.13 | 0.00 |
| Sat Flow, veh/h              | 3676 | 1585 | 1781 | 3676 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 1120 | 0    | 234  | 506  | 173  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1791 | 1585 | 1781 | 1791 | 1781 | 1585 |
| Q Serve(g_s), s              | 12.2 | 0.0  | 2.9  | 2.8  | 5.6  | 0.0  |
| Cycle Q Clear(g_c), s        | 12.2 | 0.0  | 2.9  | 2.8  | 5.6  | 0.0  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1967 |      | 456  | 2564 | 238  |      |
| V/C Ratio(X)                 | 0.57 |      | 0.51 | 0.20 | 0.73 |      |
| Avail Cap(c_a), veh/h        | 2346 |      | 858  | 3750 | 552  |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh     | 8.8  | 0.0  | 6.8  | 2.8  | 24.8 | 0.0  |
| Incr Delay (d2), s/veh       | 0.3  | 0.0  | 0.9  | 0.0  | 4.2  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 5.9  | 0.0  | 1.1  | 0.6  | 4.5  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 9.1  | 0.0  | 7.7  | 2.8  | 29.0 | 0.0  |
| LnGrp LOS                    | A    |      | A    | A    | C    |      |
| Approach Vol, veh/h          | 1120 | A    |      | 740  | 173  | A    |
| Approach Delay, s/veh        | 9.1  |      |      | 4.4  | 29.0 |      |
| Approach LOS                 | A    |      |      | A    | C    |      |
| Timer - Assigned Phs         |      | 2    |      |      | 5    | 6    |
| Phs Duration (G+Y+Rc), s     |      | 47.2 |      |      | 9.9  | 37.3 |
| Change Period (Y+Rc), s      |      | 4.5  |      |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s  |      | 62.5 |      |      | 18.9 | 39.1 |
| Max Q Clear Time (g_c+I1), s |      | 4.8  |      |      | 4.9  | 14.2 |
| Green Ext Time (p_c), s      |      | 12.7 |      |      | 0.6  | 18.5 |
|                              |      |      |      |      |      | 0.4  |
| Intersection Summary         |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 9.1  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

### Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

# HCM 6th Signalized Intersection Summary

## 1: Dana Circle & Old Cornelia Highway

2030 - Consolidated Traffic Signal w Widening

AM Peak Hour

|                              | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|------------------------------|------|------|------|------|------|------|
| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations          | ↑↑   | ↑    | ↘    | ↑↑   | ↘    | ↑    |
| Traffic Volume (veh/h)       | 481  | 169  | 130  | 914  | 333  | 301  |
| Future Volume (veh/h)        | 481  | 169  | 130  | 914  | 333  | 301  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1796 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 523  | 0    | 141  | 993  | 362  | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 7    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1417 |      | 550  | 2061 | 452  |      |
| Arrive On Green              | 0.42 | 0.00 | 0.08 | 0.58 | 0.25 | 0.00 |
| Sat Flow, veh/h              | 3503 | 1585 | 1781 | 3647 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 523  | 0    | 141  | 993  | 362  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1706 | 1585 | 1781 | 1777 | 1781 | 1585 |
| Q Serve(g_s), s              | 5.7  | 0.0  | 2.2  | 8.8  | 10.3 | 0.0  |
| Cycle Q Clear(g_c), s        | 5.7  | 0.0  | 2.2  | 8.8  | 10.3 | 0.0  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1417 |      | 550  | 2061 | 452  |      |
| V/C Ratio(X)                 | 0.37 |      | 0.26 | 0.48 | 0.80 |      |
| Avail Cap(c_a), veh/h        | 1738 |      | 785  | 2863 | 1237 |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh     | 10.9 | 0.0  | 7.0  | 6.6  | 18.9 | 0.0  |
| Incr Delay (d2), s/veh       | 0.2  | 0.0  | 0.2  | 0.2  | 3.4  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 3.0  | 0.0  | 1.0  | 3.5  | 7.7  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 11.1 | 0.0  | 7.3  | 6.8  | 22.2 | 0.0  |
| LnGrp LOS                    | B    |      | A    | A    | C    |      |
| Approach Vol, veh/h          | 523  | A    |      | 1134 | 362  | A    |
| Approach Delay, s/veh        | 11.1 |      |      | 6.9  | 22.2 |      |
| Approach LOS                 | B    |      |      | A    | C    |      |
| Timer - Assigned Phs         | 2    |      | 5    |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     | 35.8 |      | 8.9  |      | 26.9 | 18.2 |
| Change Period (Y+Rc), s      | 4.5  |      | 4.5  |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s  | 43.5 |      | 11.5 |      | 27.5 | 37.5 |
| Max Q Clear Time (g_c+I1), s | 10.8 |      | 4.2  |      | 7.7  | 12.3 |
| Green Ext Time (p_c), s      | 20.5 |      | 0.2  |      | 8.0  | 1.4  |

### Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 10.7 |
| HCM 6th LOS        | B    |

### Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

# HCM 6th Signalized Intersection Summary

## 1: Dana Circle & Old Cornelia Highway

2030 - Consolidated Traffic Signal w Widening  
PM Peak Hour

|                              | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|------------------------------|------|------|------|------|------|------|
| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations          | ↑↑   | ↑    | ↘    | ↑↑   | ↘    | ↑    |
| Traffic Volume (veh/h)       | 1084 | 282  | 256  | 489  | 188  | 167  |
| Future Volume (veh/h)        | 1084 | 282  | 256  | 489  | 188  | 167  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1885 | 1870 | 1870 | 1885 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 1204 | 0    | 284  | 543  | 209  | 0    |
| Peak Hour Factor             | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, %         | 1    | 2    | 2    | 1    | 2    | 2    |
| Cap, veh/h                   | 1921 |      | 437  | 2543 | 269  |      |
| Arrive On Green              | 0.54 | 0.00 | 0.10 | 0.71 | 0.15 | 0.00 |
| Sat Flow, veh/h              | 3676 | 1585 | 1781 | 3676 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 1204 | 0    | 284  | 543  | 209  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1791 | 1585 | 1781 | 1791 | 1781 | 1585 |
| Q Serve(g_s), s              | 15.2 | 0.0  | 4.0  | 3.4  | 7.3  | 0.0  |
| Cycle Q Clear(g_c), s        | 15.2 | 0.0  | 4.0  | 3.4  | 7.3  | 0.0  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1921 |      | 437  | 2543 | 269  |      |
| V/C Ratio(X)                 | 0.63 |      | 0.65 | 0.21 | 0.78 |      |
| Avail Cap(c_a), veh/h        | 2162 |      | 771  | 3456 | 509  |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh     | 10.5 | 0.0  | 9.8  | 3.2  | 26.5 | 0.0  |
| Incr Delay (d2), s/veh       | 0.5  | 0.0  | 1.6  | 0.0  | 4.8  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 7.9  | 0.0  | 2.0  | 1.0  | 6.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 11.0 | 0.0  | 11.4 | 3.3  | 31.3 | 0.0  |
| LnGrp LOS                    | B    |      | B    | A    | C    |      |
| Approach Vol, veh/h          | 1204 | A    |      | 827  | 209  | A    |
| Approach Delay, s/veh        | 11.0 |      |      | 6.0  | 31.3 |      |
| Approach LOS                 | B    |      |      | A    | C    |      |
| Timer - Assigned Phs         |      | 2    |      |      | 5    | 6    |
| Phs Duration (G+Y+Rc), s     |      | 50.5 |      |      | 11.3 | 39.2 |
| Change Period (Y+Rc), s      |      | 4.5  |      |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s  |      | 62.5 |      |      | 18.9 | 39.1 |
| Max Q Clear Time (g_c+I1), s |      | 5.4  |      |      | 6.0  | 17.2 |
| Green Ext Time (p_c), s      |      | 12.8 |      |      | 0.8  | 17.5 |

### Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 11.0 |
| HCM 6th LOS        | B    |

### Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

# HCM 6th Signalized Intersection Summary

## 1: Dana Circle & Old Cornelia Highway

2035 - Consolidated Traffic Signal w Widening

AM Peak Hour

|                              | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|------------------------------|------|------|------|------|------|------|
| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations          | ↑↑   | ↗    | ↙    | ↑↑   | ↙    | ↗    |
| Traffic Volume (veh/h)       | 519  | 194  | 152  | 986  | 395  | 364  |
| Future Volume (veh/h)        | 519  | 194  | 152  | 986  | 395  | 364  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1796 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 564  | 0    | 165  | 1072 | 429  | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 7    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1026 |      | 565  | 2005 | 511  |      |
| Arrive On Green              | 0.30 | 0.00 | 0.19 | 0.56 | 0.29 | 0.00 |
| Sat Flow, veh/h              | 3503 | 1585 | 1781 | 3647 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 564  | 0    | 165  | 1072 | 429  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1706 | 1585 | 1781 | 1777 | 1781 | 1585 |
| Q Serve(g_s), s              | 8.4  | 0.0  | 0.0  | 11.4 | 13.7 | 0.0  |
| Cycle Q Clear(g_c), s        | 8.4  | 0.0  | 0.0  | 11.4 | 13.7 | 0.0  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1026 |      | 565  | 2005 | 511  |      |
| V/C Ratio(X)                 | 0.55 |      | 0.29 | 0.53 | 0.84 |      |
| Avail Cap(c_a), veh/h        | 1551 |      | 567  | 2555 | 1104 |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh     | 17.7 | 0.0  | 17.3 | 8.2  | 20.3 | 0.0  |
| Incr Delay (d2), s/veh       | 0.5  | 0.0  | 0.3  | 0.2  | 3.8  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 5.1  | 0.0  | 3.0  | 5.3  | 9.8  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 18.2 | 0.0  | 17.6 | 8.4  | 24.0 | 0.0  |
| LnGrp LOS                    | B    |      | B    | A    | C    |      |
| Approach Vol, veh/h          | 564  | A    |      | 1237 | 429  | A    |
| Approach Delay, s/veh        | 18.2 |      |      | 9.7  | 24.0 |      |
| Approach LOS                 | B    |      |      | A    | C    |      |
| Timer - Assigned Phs         | 2    |      | 5    |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     | 38.6 |      | 15.9 |      | 22.7 | 21.9 |
| Change Period (Y+Rc), s      | 4.5  |      | 4.5  |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s  | 43.5 |      | 11.5 |      | 27.5 | 37.5 |
| Max Q Clear Time (g_c+I1), s | 13.4 |      | 2.0  |      | 10.4 | 15.7 |
| Green Ext Time (p_c), s      | 20.7 |      | 0.3  |      | 7.8  | 1.7  |
| Intersection Summary         |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           | 14.6 |      |      |      |      |      |
| HCM 6th LOS                  | B    |      |      |      |      |      |



# HCM 6th Signalized Intersection Summary

## 1: Dana Circle & Old Cornelia Highway

2035 - Consolidated Traffic Signal w Widening  
PM Peak Hour

|                              |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Movement                     | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations          | ↑↑                                                                                | ↗                                                                                 | ↖                                                                                 | ↑↑                                                                                | ↖                                                                                 | ↗                                                                                 |
| Traffic Volume (veh/h)       | 1169                                                                              | 348                                                                               | 324                                                                               | 527                                                                               | 227                                                                               | 206                                                                               |
| Future Volume (veh/h)        | 1169                                                                              | 348                                                                               | 324                                                                               | 527                                                                               | 227                                                                               | 206                                                                               |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Ped-Bike Adj(A_pbT)          |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                | No                                                                                |                                                                                   |
| Adj Sat Flow, veh/h/ln       | 1885                                                                              | 1870                                                                              | 1870                                                                              | 1885                                                                              | 1870                                                                              | 1870                                                                              |
| Adj Flow Rate, veh/h         | 1299                                                                              | 0                                                                                 | 360                                                                               | 586                                                                               | 252                                                                               | 0                                                                                 |
| Peak Hour Factor             | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              |
| Percent Heavy Veh, %         | 1                                                                                 | 2                                                                                 | 2                                                                                 | 1                                                                                 | 2                                                                                 | 2                                                                                 |
| Cap, veh/h                   | 1841                                                                              |                                                                                   | 425                                                                               | 2516                                                                              | 305                                                                               |                                                                                   |
| Arrive On Green              | 0.51                                                                              | 0.00                                                                              | 0.13                                                                              | 0.70                                                                              | 0.17                                                                              | 0.00                                                                              |
| Sat Flow, veh/h              | 3676                                                                              | 1585                                                                              | 1781                                                                              | 3676                                                                              | 1781                                                                              | 1585                                                                              |
| Grp Volume(v), veh/h         | 1299                                                                              | 0                                                                                 | 360                                                                               | 586                                                                               | 252                                                                               | 0                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1791                                                                              | 1585                                                                              | 1781                                                                              | 1791                                                                              | 1781                                                                              | 1585                                                                              |
| Q Serve(g_s), s              | 19.7                                                                              | 0.0                                                                               | 6.0                                                                               | 4.2                                                                               | 9.7                                                                               | 0.0                                                                               |
| Cycle Q Clear(g_c), s        | 19.7                                                                              | 0.0                                                                               | 6.0                                                                               | 4.2                                                                               | 9.7                                                                               | 0.0                                                                               |
| Prop In Lane                 |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Lane Grp Cap(c), veh/h       | 1841                                                                              |                                                                                   | 425                                                                               | 2516                                                                              | 305                                                                               |                                                                                   |
| V/C Ratio(X)                 | 0.71                                                                              |                                                                                   | 0.85                                                                              | 0.23                                                                              | 0.82                                                                              |                                                                                   |
| Avail Cap(c_a), veh/h        | 1963                                                                              |                                                                                   | 673                                                                               | 3137                                                                              | 462                                                                               |                                                                                   |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              |
| Uniform Delay (d), s/veh     | 13.2                                                                              | 0.0                                                                               | 13.1                                                                              | 3.8                                                                               | 28.5                                                                              | 0.0                                                                               |
| Incr Delay (d2), s/veh       | 1.1                                                                               | 0.0                                                                               | 5.8                                                                               | 0.0                                                                               | 7.3                                                                               | 0.0                                                                               |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |
| %ile BackOfQ(95%),veh/ln     | 10.6                                                                              | 0.0                                                                               | 5.9                                                                               | 1.5                                                                               | 8.2                                                                               | 0.0                                                                               |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| LnGrp Delay(d),s/veh         | 14.3                                                                              | 0.0                                                                               | 18.9                                                                              | 3.8                                                                               | 35.8                                                                              | 0.0                                                                               |
| LnGrp LOS                    | B                                                                                 |                                                                                   | B                                                                                 | A                                                                                 | D                                                                                 |                                                                                   |
| Approach Vol, veh/h          | 1299                                                                              | A                                                                                 |                                                                                   | 946                                                                               | 252                                                                               | A                                                                                 |
| Approach Delay, s/veh        | 14.3                                                                              |                                                                                   |                                                                                   | 9.6                                                                               | 35.8                                                                              |                                                                                   |
| Approach LOS                 | B                                                                                 |                                                                                   |                                                                                   | A                                                                                 | D                                                                                 |                                                                                   |
| Timer - Assigned Phs         | 2                                                                                 |                                                                                   | 5                                                                                 |                                                                                   | 6                                                                                 | 8                                                                                 |
| Phs Duration (G+Y+Rc), s     | 54.6                                                                              |                                                                                   | 13.5                                                                              |                                                                                   | 41.2                                                                              | 16.7                                                                              |
| Change Period (Y+Rc), s      | 4.5                                                                               |                                                                                   | 4.5                                                                               |                                                                                   | 4.5                                                                               | 4.5                                                                               |
| Max Green Setting (Gmax), s  | 62.5                                                                              |                                                                                   | 18.9                                                                              |                                                                                   | 39.1                                                                              | 18.5                                                                              |
| Max Q Clear Time (g_c+I1), s | 6.2                                                                               |                                                                                   | 8.0                                                                               |                                                                                   | 21.7                                                                              | 11.7                                                                              |
| Green Ext Time (p_c), s      | 14.1                                                                              |                                                                                   | 0.9                                                                               |                                                                                   | 14.9                                                                              | 0.5                                                                               |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                   | 14.7                                                                              |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th LOS                  |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |

## **B. DUMBBELL ROUNDABOUT**

## **SINGLE LANE ROUNDABOUT**

# MOVEMENT SUMMARY

 **Site: 101 [2025 AM, School (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|----------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                 | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                        |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 18                                     | R2   | 162           | 9.0    | 195           | 9.0    | 0.335     | 11.0        | LOS B            | 2.2               | 59.1      | 0.83      | 0.79                | 0.83             | 26.3        |
| Approach                               |      | 162           | 9.0    | 195           | 9.0    | 0.335     | 11.0        | LOS B            | 2.2               | 59.1      | 0.83      | 0.79                | 0.83             | 26.3        |
| East: Olod Cornelia Highway            |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1u                                     | U    | 63            | 2.0    | 76            | 2.0    | 1.169     | 99.6        | LOS F            | 5798.8            | 147365.2  | 1.00      | 0.07                | 1.05             | 2.1         |
| 1                                      | L2   | 82            | 3.0    | 99            | 3.0    | 1.169     | 99.6        | LOS F            | 5798.8            | 147365.2  | 1.00      | 0.07                | 1.05             | 9.6         |
| 6                                      | T1   | 1129          | 2.0    | 1360          | 2.0    | 1.169     | 99.6        | LOS F            | 5798.8            | 147365.2  | 1.00      | 0.07                | 1.05             | 9.6         |
| Approach                               |      | 1274          | 2.1    | 1535          | 2.1    | 1.169     | 99.6        | LOS F            | 5798.8            | 147365.2  | 1.00      | 0.07                | 1.05             | 9.3         |
| West: Old Cornelia Highway             |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                      | T1   | 516           | 4.0    | 622           | 4.0    | 0.665     | 13.1        | LOS B            | 7.4               | 190.6     | 0.72      | 0.47                | 0.72             | 22.7        |
| 12                                     | R2   | 77            | 3.0    | 93            | 3.0    | 0.665     | 13.0        | LOS B            | 7.4               | 190.6     | 0.72      | 0.47                | 0.72             | 30.9        |
| Approach                               |      | 593           | 3.9    | 714           | 3.9    | 0.665     | 13.1        | LOS B            | 7.4               | 190.6     | 0.72      | 0.47                | 0.72             | 24.0        |
| All Vehicles                           |      | 2029          | 3.1    | 2445          | 3.1    | 1.169     | 67.2        | LOS F            | 5798.8            | 147365.2  | 0.90      | 0.25                | 0.93             | 12.3        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Peanut (2 drives)\Existing.sip9

# MOVEMENT SUMMARY

 **Site: 101 [2025 AM, DW 1 (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 225           | 2.0  | 245           | 2.0  | 0.590     | 14.3        | LOS B            | 5.8               | 148.3     | 0.85      | 0.98                | 1.23             | 20.6        |
| 18                           | R2   | 188           | 2.0  | 204           | 2.0  | 0.590     | 14.3        | LOS B            | 5.8               | 148.3     | 0.85      | 0.98                | 1.23             | 29.0        |
| Approach                     |      | 413           | 2.0  | 449           | 2.0  | 0.590     | 14.3        | LOS B            | 5.8               | 148.3     | 0.85      | 0.98                | 1.23             | 25.0        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 6                            | T1   | 959           | 2.0  | 1042          | 2.0  | 1.119     | 87.2        | LOS F            | 73.8              | 1874.6    | 1.00      | 2.55                | 4.60             | 10.3        |
| Approach                     |      | 959           | 2.0  | 1042          | 2.0  | 1.119     | 87.2        | LOS F            | 73.8              | 1874.6    | 1.00      | 2.55                | 4.60             | 10.3        |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 5u                           | U    | 90            | 9.0  | 98            | 9.0  | 0.640     | 11.0        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 12.4        |
| 2                            | T1   | 508           | 7.0  | 552           | 7.0  | 0.640     | 11.0        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.8        |
| 12                           | R2   | 144           | 2.0  | 157           | 2.0  | 0.640     | 10.9        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 36.4        |
| Approach                     |      | 742           | 6.3  | 807           | 6.3  | 0.640     | 11.0        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 36.4        |
| All Vehicles                 |      | 2114          | 3.5  | 2298          | 3.5  | 1.119     | 46.2        | LOS E            | 73.8              | 1874.6    | 0.62      | 1.35                | 2.33             | 16.3        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2025 PM, School (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|----------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                 | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                        |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 18                                     | R2   | 83            | 0.0    | 90            | 0.0    | 0.349     | 22.8        | LOS C            | 2.6               | 66.0      | 1.00      | 1.01                | 1.02             | 20.9        |
| Approach                               |      | 83            | 0.0    | 90            | 0.0    | 0.349     | 22.8        | LOS C            | 2.6               | 66.0      | 1.00      | 1.01                | 1.02             | 20.9        |
| East: Olod Cornelia Highway            |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1u                                     | U    | 208           | 2.0    | 226           | 2.0    | 0.700     | 12.3        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 8.9         |
| 1                                      | L2   | 27            | 0.0    | 29            | 0.0    | 0.700     | 12.3        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.0        |
| 6                                      | T1   | 611           | 2.0    | 664           | 2.0    | 0.700     | 12.3        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 37.5        |
| Approach                               |      | 846           | 1.9    | 920           | 1.9    | 0.700     | 12.3        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 31.3        |
| West: Old Cornelia Highway             |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                      | T1   | 1219          | 9.0    | 1325          | 9.0    | 1.395     | 198.6       | LOS F            | 159.2             | 4261.4    | 1.00      | 3.88                | 7.00             | 4.9         |
| 12                                     | R2   | 25            | 0.0    | 27            | 0.0    | 1.395     | 198.2       | LOS F            | 159.2             | 4261.4    | 1.00      | 3.88                | 7.00             | 8.8         |
| Approach                               |      | 1244          | 8.8    | 1352          | 8.8    | 1.395     | 198.6       | LOS F            | 159.2             | 4261.4    | 1.00      | 3.88                | 7.00             | 5.0         |
| All Vehicles                           |      | 2173          | 5.8    | 2362          | 5.8    | 1.395     | 119.4       | LOS F            | 159.2             | 4261.4    | 0.61      | 2.26                | 4.05             | 7.3         |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2025 PM, DW 1 (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 149           | 2.0    | 166           | 2.0    | 0.736     | 33.2        | LOS D            | 9.5               | 240.1     | 1.00      | 1.29                | 1.79             | 15.8        |
| 18                           | R2   | 124           | 2.0    | 138           | 2.0    | 0.736     | 33.2        | LOS D            | 9.5               | 240.1     | 1.00      | 1.29                | 1.79             | 23.4        |
| Approach                     |      | 273           | 2.0    | 303           | 2.0    | 0.736     | 33.2        | LOS D            | 9.5               | 240.1     | 1.00      | 1.29                | 1.79             | 19.6        |
| East: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 6                            | T1   | 666           | 1.0    | 740           | 1.0    | 0.691     | 14.0        | LOS B            | 9.6               | 240.7     | 0.77      | 0.61                | 0.88             | 25.6        |
| Approach                     |      | 666           | 1.0    | 740           | 1.0    | 0.691     | 14.0        | LOS B            | 9.6               | 240.7     | 0.77      | 0.61                | 0.88             | 25.6        |
| West: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5u                           | U    | 31            | 0.0    | 34            | 0.0    | 1.268     | 140.1       | LOS F            | 6479.8            | 163659.3  | 1.00      | 0.07                | 1.05             | 1.3         |
| 2                            | T1   | 1020          | 1.0    | 1133          | 1.0    | 1.268     | 140.2       | LOS F            | 6479.8            | 163659.3  | 1.00      | 0.07                | 1.05             | 7.2         |
| 12                           | R2   | 459           | 2.0    | 510           | 2.0    | 1.268     | 140.2       | LOS F            | 6479.8            | 163659.3  | 1.00      | 0.07                | 1.05             | 7.1         |
| Approach                     |      | 1510          | 1.3    | 1678          | 1.3    | 1.268     | 140.2       | LOS F            | 6479.8            | 163659.3  | 1.00      | 0.07                | 1.05             | 7.1         |
| All Vehicles                 |      | 2449          | 1.3    | 2721          | 1.3    | 1.268     | 93.9        | LOS F            | 6479.8            | 163659.3  | 0.94      | 0.35                | 1.08             | 10.0        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2030 AM, School (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance           |      |                  |           |                  |           |           |             |                  |                   |              |           |                     |                  |             |
|----------------------------------------|------|------------------|-----------|------------------|-----------|-----------|-------------|------------------|-------------------|--------------|-----------|---------------------|------------------|-------------|
| Mov ID                                 | Turn | INPUT VOLUMES    |           | DEMAND FLOWS     |           | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |              | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                        |      | [ Total<br>veh/h | HV ]<br>% | [ Total<br>veh/h | HV ]<br>% |           |             |                  | [ Veh.<br>veh     | Dist ]<br>ft |           |                     |                  |             |
| South: White Sulphur Elementary School |      |                  |           |                  |           |           |             |                  |                   |              |           |                     |                  |             |
| 18                                     | R2   | 177              | 9.0       | 213              | 9.0       | 0.398     | 13.2        | LOS B            | 2.9               | 78.3         | 0.89      | 0.90                | 0.96             | 25.1        |
| Approach                               |      | 177              | 9.0       | 213              | 9.0       | 0.398     | 13.2        | LOS B            | 2.9               | 78.3         | 0.89      | 0.90                | 0.96             | 25.1        |
| East: Olod Cornelia Highway            |      |                  |           |                  |           |           |             |                  |                   |              |           |                     |                  |             |
| 1u                                     | U    | 81               | 2.0       | 98               | 2.0       | 1.281     | 145.6       | LOS F            | 6475.0            | 164550.1     | 1.00      | 0.07                | 1.05             | 1.5         |
| 1                                      | L2   | 94               | 3.0       | 113              | 3.0       | 1.281     | 145.6       | LOS F            | 6475.0            | 164550.1     | 1.00      | 0.07                | 1.05             | 7.1         |
| 6                                      | T1   | 1247             | 2.0       | 1502             | 2.0       | 1.281     | 145.6       | LOS F            | 6475.0            | 164550.1     | 1.00      | 0.07                | 1.05             | 7.1         |
| Approach                               |      | 1422             | 2.1       | 1713             | 2.1       | 1.281     | 145.6       | LOS F            | 6475.0            | 164550.1     | 1.00      | 0.07                | 1.05             | 6.8         |
| West: Old Cornelia Highway             |      |                  |           |                  |           |           |             |                  |                   |              |           |                     |                  |             |
| 2                                      | T1   | 567              | 4.0       | 683              | 4.0       | 0.726     | 15.2        | LOS C            | 10.9              | 279.9        | 0.80      | 0.60                | 0.89             | 21.8        |
| 12                                     | R2   | 83               | 3.0       | 100              | 3.0       | 0.726     | 15.2        | LOS C            | 10.9              | 279.9        | 0.80      | 0.60                | 0.89             | 30.0        |
| Approach                               |      | 650              | 3.9       | 783              | 3.9       | 0.726     | 15.2        | LOS C            | 10.9              | 279.9        | 0.80      | 0.60                | 0.89             | 23.1        |
| All Vehicles                           |      | 2249             | 3.1       | 2710             | 3.1       | 1.281     | 97.5        | LOS F            | 6475.0            | 164550.1     | 0.93      | 0.29                | 0.99             | 9.5         |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2030 AM, DW 1 (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 281           | 2.0  | 305           | 2.0  | 0.748     | 21.3        | LOS C            | 10.7              | 271.0     | 0.95      | 1.26                | 1.75             | 18.5        |
| 18                           | R2   | 236           | 2.0  | 257           | 2.0  | 0.748     | 21.3        | LOS C            | 10.7              | 271.0     | 0.95      | 1.26                | 1.75             | 26.6        |
| Approach                     |      | 517           | 2.0  | 562           | 2.0  | 0.748     | 21.3        | LOS C            | 10.7              | 271.0     | 0.95      | 1.26                | 1.75             | 22.7        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 6                            | T1   | 1044          | 2.0  | 1135          | 2.0  | 1.284     | 153.1       | LOS F            | 110.0             | 2793.0    | 1.00      | 3.53                | 6.86             | 6.7         |
| Approach                     |      | 1044          | 2.0  | 1135          | 2.0  | 1.284     | 153.1       | LOS F            | 110.0             | 2793.0    | 1.00      | 3.53                | 6.86             | 6.7         |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 5u                           | U    | 97            | 9.0  | 105           | 9.0  | 0.697     | 12.5        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 12.4        |
| 2                            | T1   | 546           | 7.0  | 593           | 7.0  | 0.697     | 12.5        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.8        |
| 12                           | R2   | 182           | 2.0  | 198           | 2.0  | 0.697     | 12.4        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 36.4        |
| Approach                     |      | 825           | 6.1  | 897           | 6.1  | 0.697     | 12.5        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 36.4        |
| All Vehicles                 |      | 2386          | 3.4  | 2593          | 3.4  | 1.284     | 75.9        | LOS F            | 110.0             | 2793.0    | 0.64      | 1.82                | 3.38             | 12.0        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2030 PM, School (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|----------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                 | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                        |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 18                                     | R2   | 95            | 0.0    | 103           | 0.0    | 0.399     | 24.8        | LOS C            | 3.2               | 79.9      | 1.00      | 1.04                | 1.11             | 20.2        |
| Approach                               |      | 95            | 0.0    | 103           | 0.0    | 0.399     | 24.8        | LOS C            | 3.2               | 79.9      | 1.00      | 1.04                | 1.11             | 20.2        |
| East: Olod Cornelia Highway            |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1u                                     | U    | 253           | 2.0    | 275           | 2.0    | 0.782     | 15.4        | LOS C            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 9.0         |
| 1                                      | L2   | 33            | 0.0    | 36            | 0.0    | 0.782     | 15.4        | LOS C            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 37.8        |
| 6                                      | T1   | 677           | 2.0    | 736           | 2.0    | 0.782     | 15.4        | LOS C            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 37.3        |
| Approach                               |      | 963           | 1.9    | 1047          | 1.9    | 0.782     | 15.4        | LOS C            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 30.8        |
| West: Old Cornelia Highway             |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                      | T1   | 1339          | 9.0    | 1455          | 9.0    | 1.563     | 272.5       | LOS F            | 201.5             | 5392.7    | 1.00      | 4.79                | 9.12             | 3.8         |
| 12                                     | R2   | 27            | 0.0    | 29            | 0.0    | 1.563     | 272.1       | LOS F            | 201.5             | 5392.7    | 1.00      | 4.79                | 9.12             | 6.8         |
| Approach                               |      | 1366          | 8.8    | 1485          | 8.8    | 1.563     | 272.5       | LOS F            | 201.5             | 5392.7    | 1.00      | 4.79                | 9.12             | 3.9         |
| All Vehicles                           |      | 2424          | 5.7    | 2635          | 5.7    | 1.563     | 160.6       | LOS F            | 201.5             | 5392.7    | 0.60      | 2.74                | 5.18             | 5.8         |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Peanut (2 drives)\Existing.sip9

# MOVEMENT SUMMARY

 **Site: 101 [2030 PM, DW 1 (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 185           | 2.0    | 206           | 2.0    | 0.868     | 47.2        | LOS E            | 15.1              | 383.0     | 1.00      | 1.49                | 2.33             | 13.4        |
| 18                           | R2   | 154           | 2.0    | 171           | 2.0    | 0.868     | 47.2        | LOS E            | 15.1              | 383.0     | 1.00      | 1.49                | 2.33             | 20.5        |
| Approach                     |      | 339           | 2.0    | 377           | 2.0    | 0.868     | 47.2        | LOS E            | 15.1              | 383.0     | 1.00      | 1.49                | 2.33             | 16.9        |
| East: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 6                            | T1   | 745           | 1.0    | 828           | 1.0    | 0.785     | 18.5        | LOS C            | 18.6              | 467.5     | 0.93      | 0.96                | 1.41             | 23.4        |
| Approach                     |      | 745           | 1.0    | 828           | 1.0    | 0.785     | 18.5        | LOS C            | 18.6              | 467.5     | 0.93      | 0.96                | 1.41             | 23.4        |
| West: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5u                           | U    | 33            | 0.0    | 37            | 0.0    | 1.392     | 192.9       | LOS F            | 5720.2            | 144505.1  | 1.00      | 0.06                | 1.04             | 1.0         |
| 2                            | T1   | 1097          | 1.0    | 1219          | 1.0    | 1.392     | 192.9       | LOS F            | 5720.2            | 144505.1  | 1.00      | 0.06                | 1.04             | 5.5         |
| 12                           | R2   | 557           | 2.0    | 619           | 2.0    | 1.392     | 192.9       | LOS F            | 5720.2            | 144505.1  | 1.00      | 0.06                | 1.04             | 5.5         |
| Approach                     |      | 1687          | 1.3    | 1874          | 1.3    | 1.392     | 192.9       | LOS F            | 5720.2            | 144505.1  | 1.00      | 0.06                | 1.04             | 5.4         |
| All Vehicles                 |      | 2771          | 1.3    | 3079          | 1.3    | 1.392     | 128.2       | LOS F            | 5720.2            | 144505.1  | 0.98      | 0.48                | 1.29             | 7.9         |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Peanut (2 drives)\Existing.sip9

# MOVEMENT SUMMARY

 **Site: 101 [2035 AM, School (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|----------------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                 | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                        |      | [ Total veh/h | HV % | [ Total veh/h | HV % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: White Sulphur Elementary School |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 18                                     | R2   | 194           | 9.0  | 234           | 9.0  | 0.478     | 16.4        | LOS C            | 4.1               | 110.3     | 0.96      | 1.05                | 1.18             | 23.5        |
| Approach                               |      | 194           | 9.0  | 234           | 9.0  | 0.478     | 16.4        | LOS C            | 4.1               | 110.3     | 0.96      | 1.05                | 1.18             | 23.5        |
| East: Olod Cornelia Highway            |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 1u                                     | U    | 99            | 2.0  | 119           | 2.0  | 1.393     | 193.3       | LOS F            | 4994.7            | 126934.5  | 1.00      | 0.06                | 1.03             | 1.2         |
| 1                                      | L2   | 109           | 3.0  | 131           | 3.0  | 1.393     | 193.3       | LOS F            | 4994.7            | 126934.5  | 1.00      | 0.06                | 1.03             | 5.6         |
| 6                                      | T1   | 1382          | 2.0  | 1665          | 2.0  | 1.393     | 193.3       | LOS F            | 4994.7            | 126934.5  | 1.00      | 0.06                | 1.03             | 5.6         |
| Approach                               |      | 1590          | 2.1  | 1916          | 2.1  | 1.393     | 193.3       | LOS F            | 4994.7            | 126934.5  | 1.00      | 0.06                | 1.03             | 5.4         |
| West: Old Cornelia Highway             |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 2                                      | T1   | 623           | 4.0  | 751           | 4.0  | 0.783     | 17.8        | LOS C            | 17.5              | 450.1     | 0.89      | 0.80                | 1.19             | 20.9        |
| 12                                     | R2   | 90            | 3.0  | 108           | 3.0  | 0.783     | 17.8        | LOS C            | 17.5              | 450.1     | 0.89      | 0.80                | 1.19             | 29.0        |
| Approach                               |      | 713           | 3.9  | 859           | 3.9  | 0.783     | 17.8        | LOS C            | 17.5              | 450.1     | 0.89      | 0.80                | 1.19             | 22.2        |
| All Vehicles                           |      | 2497          | 3.1  | 3008          | 3.1  | 1.393     | 129.5       | LOS F            | 4994.7            | 126934.5  | 0.97      | 0.35                | 1.09             | 7.6         |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Peanut (2 drives)\Existing.sip9



# MOVEMENT SUMMARY

 **Site: 101 [2035 AM, DW 1 (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 346           | 2.0  | 376           | 2.0  | 0.928     | 40.8        | LOS E            | 23.2              | 588.9     | 1.00      | 1.72                | 2.88             | 14.4        |
| 18                           | R2   | 294           | 2.0  | 320           | 2.0  | 0.928     | 40.8        | LOS E            | 23.2              | 588.9     | 1.00      | 1.72                | 2.88             | 21.7        |
| Approach                     |      | 640           | 2.0  | 696           | 2.0  | 0.928     | 40.8        | LOS E            | 23.2              | 588.9     | 1.00      | 1.72                | 2.88             | 18.1        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 6                            | T1   | 1138          | 2.0  | 1237          | 2.0  | 1.465     | 231.2       | LOS F            | 150.7             | 3828.6    | 1.00      | 4.42                | 9.06             | 4.7         |
| Approach                     |      | 1138          | 2.0  | 1237          | 2.0  | 1.465     | 231.2       | LOS F            | 150.7             | 3828.6    | 1.00      | 4.42                | 9.06             | 4.7         |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 5u                           | U    | 105           | 9.0  | 114           | 9.0  | 0.752     | 14.3        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 12.3        |
| 2                            | T1   | 589           | 7.0  | 640           | 7.0  | 0.752     | 14.2        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.8        |
| 12                           | R2   | 222           | 2.0  | 241           | 2.0  | 0.752     | 14.1        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 36.5        |
| Approach                     |      | 916           | 6.0  | 996           | 6.0  | 0.752     | 14.2        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 36.4        |
| All Vehicles                 |      | 2694          | 3.4  | 2928          | 3.4  | 1.465     | 112.2       | LOS F            | 150.7             | 3828.6    | 0.66      | 2.28                | 4.51             | 9.1         |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2035 PM, School (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|----------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                 | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                        |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 18                                     | R2   | 112           | 0.0    | 122           | 0.0    | 0.478     | 28.7        | LOS D            | 4.2               | 104.8     | 1.00      | 1.09                | 1.24             | 18.9        |
| Approach                               |      | 112           | 0.0    | 122           | 0.0    | 0.478     | 28.7        | LOS D            | 4.2               | 104.8     | 1.00      | 1.09                | 1.24             | 18.9        |
| East: Olod Cornelia Highway            |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1u                                     | U    | 320           | 2.0    | 348           | 2.0    | 0.881     | 22.1        | LOS C            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 9.0         |
| 1                                      | L2   | 41            | 0.0    | 45            | 0.0    | 0.881     | 22.1        | LOS C            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 37.6        |
| 6                                      | T1   | 755           | 2.0    | 821           | 2.0    | 0.881     | 22.1        | LOS C            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 37.1        |
| Approach                               |      | 1116          | 1.9    | 1213          | 1.9    | 0.881     | 22.1        | LOS C            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 30.0        |
| West: Old Cornelia Highway             |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                      | T1   | 1488          | 9.0    | 1617          | 9.0    | 1.779     | 367.9       | LOS F            | 255.2             | 6830.0    | 1.00      | 5.83                | 11.72            | 2.9         |
| 12                                     | R2   | 30            | 0.0    | 33            | 0.0    | 1.779     | 367.5       | LOS F            | 255.2             | 6830.0    | 1.00      | 5.83                | 11.72            | 5.3         |
| Approach                               |      | 1518          | 8.8    | 1650          | 8.8    | 1.779     | 367.9       | LOS F            | 255.2             | 6830.0    | 1.00      | 5.83                | 11.72            | 3.0         |
| All Vehicles                           |      | 2746          | 5.7    | 2985          | 5.7    | 1.779     | 213.5       | LOS F            | 255.2             | 6830.0    | 0.59      | 3.27                | 6.53             | 4.6         |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Peanut (2 drives)\Existing.sip9

# MOVEMENT SUMMARY

 **Site: 101 [2035 PM, DW 1 (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 228           | 2.0    | 253           | 2.0    | 0.992     | 69.2        | LOS F            | 25.4              | 646.3     | 1.00      | 1.82                | 3.18             | 10.9        |
| 18                           | R2   | 192           | 2.0    | 213           | 2.0    | 0.992     | 69.2        | LOS F            | 25.4              | 646.3     | 1.00      | 1.82                | 3.18             | 17.1        |
| Approach                     |      | 420           | 2.0    | 467           | 2.0    | 0.992     | 69.2        | LOS F            | 25.4              | 646.3     | 1.00      | 1.82                | 3.18             | 14.0        |
| East: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 6                            | T1   | 851           | 1.0    | 946           | 1.0    | 0.906     | 29.9        | LOS D            | 34.5              | 868.7     | 1.00      | 1.39                | 2.17             | 19.3        |
| Approach                     |      | 851           | 1.0    | 946           | 1.0    | 0.906     | 29.9        | LOS D            | 34.5              | 868.7     | 1.00      | 1.39                | 2.17             | 19.3        |
| West: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5u                           | U    | 36            | 0.0    | 40            | 0.0    | 1.540     | 257.5       | LOS F            | 4456.5            | 112612.5  | 1.00      | 0.06                | 1.03             | 0.7         |
| 2                            | T1   | 1183          | 1.0    | 1314          | 1.0    | 1.540     | 257.6       | LOS F            | 4456.5            | 112612.5  | 1.00      | 0.06                | 1.03             | 4.3         |
| 12                           | R2   | 700           | 2.0    | 778           | 2.0    | 1.540     | 257.6       | LOS F            | 4456.5            | 112612.5  | 1.00      | 0.06                | 1.03             | 4.2         |
| Approach                     |      | 1919          | 1.3    | 2132          | 1.3    | 1.540     | 257.6       | LOS F            | 4456.5            | 112612.5  | 1.00      | 0.06                | 1.03             | 4.2         |
| All Vehicles                 |      | 3190          | 1.3    | 3544          | 1.3    | 1.540     | 172.1       | LOS F            | 4456.5            | 112612.5  | 1.00      | 0.65                | 1.61             | 6.2         |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Peanut (2 drives)\Existing.sip9

## MULTILANE ROUNDABOUT

# MOVEMENT SUMMARY

 **Site: 101 [2025 AM, School (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|----------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                 | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                        |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 18                                     | R2   | 162           | 9.0    | 195           | 9.0    | 0.289     | 9.0         | LOS A            | 1.2               | 33.2      | 0.61      | 0.61                | 0.61             | 27.6        |
| Approach                               |      | 162           | 9.0    | 195           | 9.0    | 0.289     | 9.0         | LOS A            | 1.2               | 33.2      | 0.61      | 0.61                | 0.61             | 27.6        |
| East: Olod Cornelia Highway            |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1u                                     | U    | 63            | 2.0    | 76            | 2.0    | 0.496     | 7.3         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 19.4        |
| 1                                      | L2   | 82            | 3.0    | 99            | 3.0    | 0.496     | 7.4         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.6        |
| 6                                      | T1   | 1129          | 2.0    | 1360          | 2.0    | 0.496     | 7.0         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 39.2        |
| Approach                               |      | 1274          | 2.1    | 1535          | 2.1    | 0.496     | 7.1         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.7        |
| West: Old Cornelia Highway             |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                      | T1   | 516           | 4.0    | 622           | 4.0    | 0.302     | 5.9         | LOS A            | 1.5               | 38.1      | 0.34      | 0.21                | 0.34             | 26.1        |
| 12                                     | R2   | 77            | 3.0    | 93            | 3.0    | 0.302     | 5.7         | LOS A            | 1.5               | 38.1      | 0.34      | 0.21                | 0.34             | 34.1        |
| Approach                               |      | 593           | 3.9    | 714           | 3.9    | 0.302     | 5.9         | LOS A            | 1.5               | 38.1      | 0.34      | 0.21                | 0.34             | 27.4        |
| All Vehicles                           |      | 2029          | 3.1    | 2445          | 3.1    | 0.496     | 6.9         | LOS A            | 1.5               | 38.1      | 0.15      | 0.11                | 0.15             | 33.3        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Peanut (2 drives)\Four lane.sip9

# MOVEMENT SUMMARY

 **Site: 101 [2025 AM, DW 1 (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 225           | 2.0  | 245           | 2.0  | 0.246     | 6.0         | LOS A            | 1.0               | 25.2      | 0.51      | 0.48                | 0.51             | 26.3        |
| 18                           | R2   | 188           | 2.0  | 204           | 2.0  | 0.234     | 6.5         | LOS A            | 0.9               | 23.3      | 0.53      | 0.50                | 0.53             | 33.6        |
| Approach                     |      | 413           | 2.0  | 449           | 2.0  | 0.246     | 6.2         | LOS A            | 1.0               | 25.2      | 0.52      | 0.49                | 0.52             | 30.1        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 6                            | T1   | 959           | 2.0  | 1042          | 2.0  | 0.495     | 9.2         | LOS A            | 3.3               | 83.9      | 0.61      | 0.50                | 0.61             | 28.1        |
| Approach                     |      | 959           | 2.0  | 1042          | 2.0  | 0.495     | 9.2         | LOS A            | 3.3               | 83.9      | 0.61      | 0.50                | 0.61             | 28.1        |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 5u                           | U    | 90            | 9.0  | 98            | 9.0  | 0.271     | 5.0         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 14.1        |
| 2                            | T1   | 508           | 7.0  | 552           | 7.0  | 0.271     | 4.7         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.6        |
| 12                           | R2   | 144           | 2.0  | 157           | 2.0  | 0.271     | 4.4         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 37.3        |
| Approach                     |      | 742           | 6.3  | 807           | 6.3  | 0.271     | 4.7         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 36.5        |
| All Vehicles                 |      | 2114          | 3.5  | 2298          | 3.5  | 0.495     | 7.1         | LOS A            | 3.3               | 83.9      | 0.38      | 0.32                | 0.38             | 30.8        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Peanut (2 drives)\Four lane.sip9



# MOVEMENT SUMMARY

 **Site: 101 [2025 PM, School (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|----------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                 | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                        |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 18                                     | R2   | 83            | 0.0    | 90            | 0.0    | 0.210     | 11.7        | LOS B            | 1.0               | 24.0      | 0.78      | 0.78                | 0.78             | 26.0        |
| Approach                               |      | 83            | 0.0    | 90            | 0.0    | 0.210     | 11.7        | LOS B            | 1.0               | 24.0      | 0.78      | 0.78                | 0.78             | 26.0        |
| East: Olod Cornelia Highway            |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1u                                     | U    | 208           | 2.0    | 226           | 2.0    | 0.297     | 5.0         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 9.8         |
| 1                                      | L2   | 27            | 0.0    | 29            | 0.0    | 0.297     | 4.9         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 35.8        |
| 6                                      | T1   | 611           | 2.0    | 664           | 2.0    | 0.297     | 4.7         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.5        |
| Approach                               |      | 846           | 1.9    | 920           | 1.9    | 0.297     | 4.8         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 31.4        |
| West: Old Cornelia Highway             |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                      | T1   | 1219          | 9.0    | 1325          | 9.0    | 0.637     | 12.4        | LOS B            | 6.9               | 184.5     | 0.61      | 0.56                | 0.78             | 18.2        |
| 12                                     | R2   | 25            | 0.0    | 27            | 0.0    | 0.637     | 11.8        | LOS B            | 6.7               | 179.0     | 0.60      | 0.55                | 0.76             | 31.3        |
| Approach                               |      | 1244          | 8.8    | 1352          | 8.8    | 0.637     | 12.3        | LOS B            | 6.9               | 184.5     | 0.60      | 0.56                | 0.78             | 18.5        |
| All Vehicles                           |      | 2173          | 5.8    | 2362          | 5.8    | 0.637     | 9.4         | LOS A            | 6.9               | 184.5     | 0.38      | 0.35                | 0.48             | 21.8        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2025 PM, DW 1 (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 149           | 2.0    | 166           | 2.0    | 0.199     | 6.4         | LOS A            | 0.9               | 21.7      | 0.63      | 0.62                | 0.63             | 26.2        |
| 18                           | R2   | 124           | 2.0    | 138           | 2.0    | 0.201     | 7.6         | LOS A            | 0.8               | 20.9      | 0.64      | 0.64                | 0.64             | 33.1        |
| Approach                     |      | 273           | 2.0    | 303           | 2.0    | 0.201     | 6.9         | LOS A            | 0.9               | 21.7      | 0.63      | 0.63                | 0.63             | 29.8        |
| East: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 6                            | T1   | 666           | 1.0    | 740           | 1.0    | 0.314     | 6.0         | LOS A            | 1.8               | 45.8      | 0.41      | 0.27                | 0.41             | 30.2        |
| Approach                     |      | 666           | 1.0    | 740           | 1.0    | 0.314     | 6.0         | LOS A            | 1.8               | 45.8      | 0.41      | 0.27                | 0.41             | 30.2        |
| West: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5u                           | U    | 31            | 0.0    | 34            | 0.0    | 0.538     | 7.9         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 14.4        |
| 2                            | T1   | 1020          | 1.0    | 1133          | 1.0    | 0.538     | 7.7         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 39.8        |
| 12                           | R2   | 459           | 2.0    | 510           | 2.0    | 0.538     | 7.4         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 37.3        |
| Approach                     |      | 1510          | 1.3    | 1678          | 1.3    | 0.538     | 7.6         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.7        |
| All Vehicles                 |      | 2449          | 1.3    | 2721          | 1.3    | 0.538     | 7.1         | LOS A            | 1.8               | 45.8      | 0.18      | 0.14                | 0.18             | 34.6        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2030 AM, School (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|----------------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                 | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                        |      | [ Total veh/h | HV % | [ Total veh/h | HV % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: White Sulphur Elementary School |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 18                                     | R2   | 177           | 9.0  | 213           | 9.0  | 0.323     | 9.7         | LOS A            | 1.4               | 38.5      | 0.65      | 0.65                | 0.66             | 27.2        |
| Approach                               |      | 177           | 9.0  | 213           | 9.0  | 0.323     | 9.7         | LOS A            | 1.4               | 38.5      | 0.65      | 0.65                | 0.66             | 27.2        |
| East: Olod Cornelia Highway            |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 1u                                     | U    | 81            | 2.0  | 98            | 2.0  | 0.546     | 8.1         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 19.2        |
| 1                                      | L2   | 94            | 3.0  | 113           | 3.0  | 0.546     | 8.1         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.4        |
| 6                                      | T1   | 1247          | 2.0  | 1502          | 2.0  | 0.546     | 7.7         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 39.1        |
| Approach                               |      | 1422          | 2.1  | 1713          | 2.1  | 0.546     | 7.8         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.6        |
| West: Old Cornelia Highway             |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 2                                      | T1   | 567           | 4.0  | 683           | 4.0  | 0.334     | 6.3         | LOS A            | 1.7               | 43.8      | 0.38      | 0.26                | 0.38             | 25.8        |
| 12                                     | R2   | 83            | 3.0  | 100           | 3.0  | 0.334     | 6.1         | LOS A            | 1.7               | 43.8      | 0.38      | 0.25                | 0.38             | 33.9        |
| Approach                               |      | 650           | 3.9  | 783           | 3.9  | 0.334     | 6.3         | LOS A            | 1.7               | 43.8      | 0.38      | 0.26                | 0.38             | 27.2        |
| All Vehicles                           |      | 2249          | 3.1  | 2710          | 3.1  | 0.546     | 7.5         | LOS A            | 1.7               | 43.8      | 0.16      | 0.13                | 0.16             | 33.1        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2030 AM, DW 1 (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 281           | 2.0  | 305           | 2.0  | 0.304     | 6.6         | LOS A            | 1.3               | 32.7      | 0.55      | 0.52                | 0.55             | 26.0        |
| 18                           | R2   | 236           | 2.0  | 257           | 2.0  | 0.295     | 7.3         | LOS A            | 1.2               | 30.9      | 0.56      | 0.55                | 0.56             | 33.2        |
| Approach                     |      | 517           | 2.0  | 562           | 2.0  | 0.304     | 7.0         | LOS A            | 1.3               | 32.7      | 0.55      | 0.53                | 0.55             | 29.8        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 6                            | T1   | 1044          | 2.0  | 1135          | 2.0  | 0.563     | 10.9        | LOS B            | 5.3               | 134.2     | 0.70      | 0.68                | 0.88             | 27.1        |
| Approach                     |      | 1044          | 2.0  | 1135          | 2.0  | 0.563     | 10.9        | LOS B            | 5.3               | 134.2     | 0.70      | 0.68                | 0.88             | 27.1        |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 5u                           | U    | 97            | 9.0  | 105           | 9.0  | 0.298     | 5.2         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 14.1        |
| 2                            | T1   | 546           | 7.0  | 593           | 7.0  | 0.298     | 4.9         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.6        |
| 12                           | R2   | 182           | 2.0  | 198           | 2.0  | 0.298     | 4.6         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 37.3        |
| Approach                     |      | 825           | 6.1  | 897           | 6.1  | 0.298     | 4.9         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 36.5        |
| All Vehicles                 |      | 2386          | 3.4  | 2593          | 3.4  | 0.563     | 8.0         | LOS A            | 5.3               | 134.2     | 0.43      | 0.42                | 0.51             | 30.2        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2030 PM, School (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|----------------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                 | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                        |      | [ Total veh/h | HV % | [ Total veh/h | HV % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: White Sulphur Elementary School |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 18                                     | R2   | 95            | 0.0  | 103           | 0.0  | 0.276     | 14.7        | LOS B            | 1.3               | 33.6      | 0.84      | 0.84                | 0.85             | 24.4        |
| Approach                               |      | 95            | 0.0  | 103           | 0.0  | 0.276     | 14.7        | LOS B            | 1.3               | 33.6      | 0.84      | 0.84                | 0.85             | 24.4        |
| East: Olod Cornelia Highway            |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 1u                                     | U    | 253           | 2.0  | 275           | 2.0  | 0.333     | 5.3         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 9.8         |
| 1                                      | L2   | 33            | 0.0  | 36            | 0.0  | 0.333     | 5.3         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 35.5        |
| 6                                      | T1   | 677           | 2.0  | 736           | 2.0  | 0.333     | 5.0         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.5        |
| Approach                               |      | 963           | 1.9  | 1047          | 1.9  | 0.333     | 5.1         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 30.9        |
| West: Old Cornelia Highway             |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 2                                      | T1   | 1339          | 9.0  | 1455          | 9.0  | 0.715     | 15.3        | LOS C            | 11.1              | 297.1     | 0.72      | 0.81                | 1.16             | 17.5        |
| 12                                     | R2   | 27            | 0.0  | 29            | 0.0  | 0.715     | 14.5        | LOS B            | 11.1              | 297.1     | 0.71      | 0.79                | 1.14             | 30.1        |
| Approach                               |      | 1366          | 8.8  | 1485          | 8.8  | 0.715     | 15.2        | LOS C            | 11.1              | 297.1     | 0.72      | 0.81                | 1.16             | 17.8        |
| All Vehicles                           |      | 2424          | 5.7  | 2635          | 5.7  | 0.715     | 11.2        | LOS B            | 11.1              | 297.1     | 0.44      | 0.49                | 0.69             | 21.1        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2030 PM, DW 1 (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 185           | 2.0    | 206           | 2.0    | 0.250     | 7.1         | LOS A            | 1.1               | 29.1      | 0.67      | 0.67                | 0.67             | 25.8        |
| 18                           | R2   | 154           | 2.0    | 171           | 2.0    | 0.260     | 8.7         | LOS A            | 1.1               | 28.5      | 0.68      | 0.68                | 0.68             | 32.5        |
| Approach                     |      | 339           | 2.0    | 377           | 2.0    | 0.260     | 7.8         | LOS A            | 1.1               | 29.1      | 0.67      | 0.67                | 0.67             | 29.3        |
| East: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 6                            | T1   | 745           | 1.0    | 828           | 1.0    | 0.359     | 6.7         | LOS A            | 2.2               | 55.5      | 0.47      | 0.33                | 0.47             | 29.8        |
| Approach                     |      | 745           | 1.0    | 828           | 1.0    | 0.359     | 6.7         | LOS A            | 2.2               | 55.5      | 0.47      | 0.33                | 0.47             | 29.8        |
| West: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5u                           | U    | 33            | 0.0    | 37            | 0.0    | 0.593     | 8.8         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 14.4        |
| 2                            | T1   | 1097          | 1.0    | 1219          | 1.0    | 0.593     | 8.6         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 39.8        |
| 12                           | R2   | 557           | 2.0    | 619           | 2.0    | 0.593     | 8.2         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 37.3        |
| Approach                     |      | 1687          | 1.3    | 1874          | 1.3    | 0.593     | 8.5         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.7        |
| All Vehicles                 |      | 2771          | 1.3    | 3079          | 1.3    | 0.593     | 7.9         | LOS A            | 2.2               | 55.5      | 0.21      | 0.17                | 0.21             | 34.2        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2035 AM, School (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|----------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                 | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                        |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 18                                     | R2   | 194           | 9.0    | 234           | 9.0    | 0.358     | 10.4        | LOS B            | 1.8               | 46.9      | 0.68      | 0.71                | 0.77             | 26.8        |
| Approach                               |      | 194           | 9.0    | 234           | 9.0    | 0.358     | 10.4        | LOS B            | 1.8               | 46.9      | 0.68      | 0.71                | 0.77             | 26.8        |
| East: Olod Cornelia Highway            |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1u                                     | U    | 99            | 2.0    | 119           | 2.0    | 0.598     | 8.9         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 19.2        |
| 1                                      | L2   | 109           | 3.0    | 131           | 3.0    | 0.598     | 8.9         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.3        |
| 6                                      | T1   | 1382          | 2.0    | 1665          | 2.0    | 0.598     | 8.5         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 39.1        |
| Approach                               |      | 1590          | 2.1    | 1916          | 2.1    | 0.598     | 8.5         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.4        |
| West: Old Cornelia Highway             |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                      | T1   | 623           | 4.0    | 751           | 4.0    | 0.367     | 6.7         | LOS A            | 2.0               | 50.2      | 0.42      | 0.30                | 0.42             | 25.6        |
| 12                                     | R2   | 90            | 3.0    | 108           | 3.0    | 0.367     | 6.5         | LOS A            | 2.0               | 50.2      | 0.42      | 0.29                | 0.42             | 33.7        |
| Approach                               |      | 713           | 3.9    | 859           | 3.9    | 0.367     | 6.7         | LOS A            | 2.0               | 50.2      | 0.42      | 0.30                | 0.42             | 27.0        |
| All Vehicles                           |      | 2497          | 3.1    | 3008          | 3.1    | 0.598     | 8.1         | LOS A            | 2.0               | 50.2      | 0.17      | 0.14                | 0.18             | 33.0        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2035 AM, DW 1 (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 346           | 2.0  | 376           | 2.0  | 0.365     | 7.3         | LOS A            | 1.6               | 41.7      | 0.58      | 0.57                | 0.58             | 25.7        |
| 18                           | R2   | 294           | 2.0  | 320           | 2.0  | 0.368     | 8.4         | LOS A            | 1.7               | 43.2      | 0.60      | 0.62                | 0.65             | 32.7        |
| Approach                     |      | 640           | 2.0  | 696           | 2.0  | 0.368     | 7.8         | LOS A            | 1.7               | 43.2      | 0.59      | 0.59                | 0.62             | 29.4        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 6                            | T1   | 1138          | 2.0  | 1237          | 2.0  | 0.639     | 13.3        | LOS B            | 7.8               | 198.1     | 0.80      | 0.89                | 1.18             | 25.8        |
| Approach                     |      | 1138          | 2.0  | 1237          | 2.0  | 0.639     | 13.3        | LOS B            | 7.8               | 198.1     | 0.80      | 0.89                | 1.18             | 25.8        |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 5u                           | U    | 105           | 9.0  | 114           | 9.0  | 0.323     | 5.4         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 14.1        |
| 2                            | T1   | 589           | 7.0  | 640           | 7.0  | 0.323     | 5.1         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.6        |
| 12                           | R2   | 222           | 2.0  | 241           | 2.0  | 0.323     | 4.8         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 37.3        |
| Approach                     |      | 916           | 6.0  | 996           | 6.0  | 0.323     | 5.1         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 36.5        |
| All Vehicles                 |      | 2694          | 3.4  | 2928          | 3.4  | 0.639     | 9.2         | LOS A            | 7.8               | 198.1     | 0.48      | 0.52                | 0.65             | 29.4        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2035 PM, School (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|----------------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                 | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                        |      | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: White Sulphur Elementary School |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 18                                     | R2   | 112           | 0.0  | 122           | 0.0  | 0.399     | 21.5        | LOS C            | 2.3               | 57.2      | 0.90      | 0.97                | 1.13             | 21.5        |
| Approach                               |      | 112           | 0.0  | 122           | 0.0  | 0.399     | 21.5        | LOS C            | 2.3               | 57.2      | 0.90      | 0.97                | 1.13             | 21.5        |
| East: Olod Cornelia Highway            |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 1u                                     | U    | 320           | 2.0  | 348           | 2.0  | 0.378     | 5.8         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 9.9         |
| 1                                      | L2   | 41            | 0.0  | 45            | 0.0  | 0.378     | 5.7         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 35.1        |
| 6                                      | T1   | 755           | 2.0  | 821           | 2.0  | 0.378     | 5.4         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.6        |
| Approach                               |      | 1116          | 1.9  | 1213          | 1.9  | 0.378     | 5.5         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 30.1        |
| West: Old Cornelia Highway             |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 2                                      | T1   | 1488          | 9.0  | 1617          | 9.0  | 0.818     | 21.4        | LOS C            | 18.2              | 487.3     | 0.87      | 1.19                | 1.77             | 16.1        |
| 12                                     | R2   | 30            | 0.0  | 33            | 0.0  | 0.818     | 20.2        | LOS C            | 18.2              | 487.3     | 0.86      | 1.16                | 1.74             | 28.0        |
| Approach                               |      | 1518          | 8.8  | 1650          | 8.8  | 0.818     | 21.4        | LOS C            | 18.2              | 487.3     | 0.87      | 1.19                | 1.77             | 16.4        |
| All Vehicles                           |      | 2746          | 5.7  | 2985          | 5.7  | 0.818     | 14.9        | LOS B            | 18.2              | 487.3     | 0.52      | 0.70                | 1.03             | 19.8        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2035 PM, DW 1 (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 228           | 2.0  | 253           | 2.0  | 0.313     | 8.0         | LOS A            | 1.6               | 39.8      | 0.73      | 0.73                | 0.73             | 25.4        |
| 18                           | R2   | 192           | 2.0  | 213           | 2.0  | 0.341     | 10.4        | LOS B            | 1.7               | 42.6      | 0.73      | 0.76                | 0.82             | 31.7        |
| Approach                     |      | 420           | 2.0  | 467           | 2.0  | 0.341     | 9.1         | LOS A            | 1.7               | 42.6      | 0.73      | 0.74                | 0.77             | 28.7        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 6                            | T1   | 851           | 1.0  | 946           | 1.0  | 0.418     | 7.6         | LOS A            | 2.8               | 69.9      | 0.55      | 0.41                | 0.55             | 29.2        |
| Approach                     |      | 851           | 1.0  | 946           | 1.0  | 0.418     | 7.6         | LOS A            | 2.8               | 69.9      | 0.55      | 0.41                | 0.55             | 29.2        |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 5u                           | U    | 36            | 0.0  | 40            | 0.0  | 0.661     | 10.2        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 14.4        |
| 2                            | T1   | 1183          | 1.0  | 1314          | 1.0  | 0.661     | 10.0        | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 39.8        |
| 12                           | R2   | 700           | 2.0  | 778           | 2.0  | 0.661     | 9.4         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 37.4        |
| Approach                     |      | 1919          | 1.3  | 2132          | 1.3  | 0.661     | 9.8         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.6        |
| All Vehicles                 |      | 3190          | 1.3  | 3544          | 1.3  | 0.661     | 9.1         | LOS A            | 2.8               | 69.9      | 0.24      | 0.21                | 0.25             | 33.7        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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## **C. ELLIPTICAL ROUNDABOUT**

## **SINGLE LANE ROUNDABOUT**



# MOVEMENT SUMMARY

 Site: 101 [2025 AM (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance               |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|--------------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                     | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                            |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1                         |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.686     | 20.6        | LOS C            | 8.5               | 214.7     | 0.98      | 1.22                | 1.60             | 33.7        |
| 3                                          | L2   | 210           | 2.0    | 228           | 2.0    | 0.686     | 20.8        | LOS C            | 8.5               | 214.7     | 0.98      | 1.22                | 1.60             | 31.6        |
| 18                                         | R2   | 185           | 2.0    | 201           | 2.0    | 0.686     | 20.8        | LOS C            | 8.5               | 214.7     | 0.98      | 1.22                | 1.60             | 28.2        |
| 18b                                        | R3   | 1             | 0.0    | 1             | 0.0    | 0.686     | 20.6        | LOS C            | 8.5               | 214.7     | 0.98      | 1.22                | 1.60             | 27.4        |
| Approach                                   |      | 397           | 2.0    | 432           | 2.0    | 0.686     | 20.8        | LOS C            | 8.5               | 214.7     | 0.98      | 1.22                | 1.60             | 29.9        |
| SouthEast: Dana Drive                      |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3bx                                        | L3   | 1             | 0.0    | 1             | 0.0    | 0.042     | 7.0         | LOS A            | 0.3               | 8.2       | 0.94      | 0.72                | 0.94             | 41.8        |
| 3x                                         | L2   | 1             | 0.0    | 1             | 0.0    | 0.042     | 7.0         | LOS A            | 0.3               | 8.2       | 0.94      | 0.72                | 0.94             | 40.5        |
| 3ax                                        | L1   | 15            | 0.0    | 16            | 0.0    | 0.042     | 7.0         | LOS A            | 0.3               | 8.2       | 0.94      | 0.72                | 0.94             | 38.2        |
| 18bx                                       | R3   | 3             | 33.0   | 3             | 33.0   | 0.042     | 10.4        | LOS B            | 0.3               | 8.2       | 0.94      | 0.72                | 0.94             | 32.7        |
| Approach                                   |      | 20            | 5.0    | 22            | 5.0    | 0.042     | 7.5         | LOS A            | 0.3               | 8.2       | 0.94      | 0.72                | 0.94             | 37.5        |
| East: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 1.027     | 55.3        | LOS F            | 55.4              | 1408.7    | 1.00      | 2.05                | 3.51             | 23.0        |
| 1                                          | L2   | 62            | 2.0    | 67            | 2.0    | 1.027     | 55.4        | LOS F            | 55.4              | 1408.7    | 1.00      | 2.05                | 3.51             | 23.1        |
| 1a                                         | L1   | 82            | 3.0    | 99            | 3.0    | 1.027     | 55.4        | LOS F            | 55.4              | 1408.7    | 1.00      | 2.05                | 3.51             | 22.7        |
| 6                                          | T1   | 814           | 2.0    | 885           | 2.0    | 1.027     | 55.4        | LOS F            | 55.4              | 1408.7    | 1.00      | 2.05                | 3.51             | 20.5        |
| Approach                                   |      | 959           | 2.1    | 1052          | 2.1    | 1.027     | 55.4        | LOS F            | 55.4              | 1408.7    | 1.00      | 2.05                | 3.51             | 20.9        |
| West: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                          | T1   | 435           | 4.0    | 524           | 4.0    | 0.603     | 10.7        | LOS B            | 6.1               | 157.8     | 0.66      | 0.43                | 0.66             | 34.2        |
| 12a                                        | R1   | 11            | 11.0   | 12            | 11.0   | 0.603     | 10.9        | LOS B            | 6.1               | 157.8     | 0.66      | 0.43                | 0.66             | 33.7        |
| 12                                         | R2   | 70            | 2.0    | 76            | 2.0    | 0.603     | 10.6        | LOS B            | 6.1               | 157.8     | 0.66      | 0.43                | 0.66             | 33.8        |
| 12b                                        | R3   | 77            | 3.0    | 93            | 3.0    | 0.603     | 10.6        | LOS B            | 6.1               | 157.8     | 0.66      | 0.43                | 0.66             | 33.1        |
| Approach                                   |      | 593           | 3.8    | 705           | 3.8    | 0.603     | 10.7        | LOS B            | 6.1               | 157.8     | 0.66      | 0.43                | 0.66             | 34.0        |
| SouthWest: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5bx                                        | L3   | 90            | 9.0    | 108           | 9.0    | 0.240     | 7.0         | LOS A            | 1.7               | 45.6      | 0.79      | 0.67                | 0.79             | 38.0        |
| 12ax                                       | R1   | 72            | 10.0   | 87            | 10.0   | 0.240     | 7.0         | LOS A            | 1.7               | 45.6      | 0.79      | 0.67                | 0.79             | 33.7        |
| 12x                                        | R2   | 1             | 0.0    | 1             | 0.0    | 0.240     | 6.5         | LOS A            | 1.7               | 45.6      | 0.79      | 0.67                | 0.79             | 33.0        |
| 12bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.240     | 6.5         | LOS A            | 1.7               | 45.6      | 0.79      | 0.67                | 0.79             | 32.8        |
| Approach                                   |      | 164           | 9.3    | 198           | 9.3    | 0.240     | 7.0         | LOS A            | 1.7               | 45.6      | 0.79      | 0.67                | 0.79             | 35.9        |
| All Vehicles                               |      | 2133          | 3.1    | 2408          | 3.2    | 1.027     | 31.7        | LOS D            | 55.4              | 1408.7    | 0.88      | 1.30                | 2.09             | 26.3        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

# MOVEMENT SUMMARY

 Site: 101 [2025 PM (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance               |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|--------------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                     | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                            |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1                         |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.755     | 36.6        | LOS E            | 9.6               | 244.3     | 1.00      | 1.31                | 1.86             | 27.7        |
| 3                                          | L2   | 141           | 2.0    | 153           | 2.0    | 0.755     | 36.8        | LOS E            | 9.6               | 244.3     | 1.00      | 1.31                | 1.86             | 26.2        |
| 18                                         | R2   | 124           | 2.0    | 135           | 2.0    | 0.755     | 36.8        | LOS E            | 9.6               | 244.3     | 1.00      | 1.31                | 1.86             | 23.8        |
| 18b                                        | R3   | 1             | 0.0    | 1             | 0.0    | 0.755     | 36.6        | LOS E            | 9.6               | 244.3     | 1.00      | 1.31                | 1.86             | 23.2        |
| Approach                                   |      | 267           | 2.0    | 290           | 2.0    | 0.755     | 36.8        | LOS E            | 9.6               | 244.3     | 1.00      | 1.31                | 1.86             | 25.0        |
| SouthEast: Dana Drive                      |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3bx                                        | L3   | 1             | 0.0    | 1             | 0.0    | 0.031     | 9.5         | LOS A            | 0.3               | 6.5       | 1.00      | 0.74                | 1.00             | 40.3        |
| 3x                                         | L2   | 1             | 0.0    | 1             | 0.0    | 0.031     | 9.5         | LOS A            | 0.3               | 6.5       | 1.00      | 0.74                | 1.00             | 39.2        |
| 3ax                                        | L1   | 8             | 0.0    | 9             | 0.0    | 0.031     | 9.5         | LOS A            | 0.3               | 6.5       | 1.00      | 0.74                | 1.00             | 37.0        |
| 18bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.031     | 9.5         | LOS A            | 0.3               | 6.5       | 1.00      | 0.74                | 1.00             | 32.0        |
| Approach                                   |      | 11            | 0.0    | 12            | 0.0    | 0.031     | 9.5         | LOS A            | 0.3               | 6.5       | 1.00      | 0.74                | 1.00             | 37.0        |
| East: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.623     | 11.0        | LOS B            | 6.2               | 155.6     | 0.68      | 0.47                | 0.68             | 39.4        |
| 1                                          | L2   | 208           | 2.0    | 226           | 2.0    | 0.623     | 11.1        | LOS B            | 6.2               | 155.6     | 0.68      | 0.47                | 0.68             | 39.4        |
| 1a                                         | L1   | 27            | 0.0    | 29            | 0.0    | 0.623     | 11.0        | LOS B            | 6.2               | 155.6     | 0.68      | 0.47                | 0.68             | 38.7        |
| 6                                          | T1   | 431           | 1.0    | 479           | 1.0    | 0.623     | 11.1        | LOS B            | 6.2               | 155.6     | 0.68      | 0.47                | 0.68             | 32.8        |
| Approach                                   |      | 667           | 1.3    | 735           | 1.3    | 0.623     | 11.1        | LOS B            | 6.2               | 155.6     | 0.68      | 0.47                | 0.68             | 34.8        |
| West: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                          | T1   | 968           | 9.0    | 1052          | 9.0    | 1.293     | 154.0       | LOS F            | 138.0             | 3657.6    | 1.00      | 3.41                | 5.99             | 11.0        |
| 12a                                        | R1   | 15            | 8.0    | 17            | 8.0    | 1.293     | 154.0       | LOS F            | 138.0             | 3657.6    | 1.00      | 3.41                | 5.99             | 11.0        |
| 12                                         | R2   | 236           | 2.0    | 257           | 2.0    | 1.293     | 153.8       | LOS F            | 138.0             | 3657.6    | 1.00      | 3.41                | 5.99             | 11.0        |
| 12b                                        | R3   | 25            | 0.0    | 27            | 0.0    | 1.293     | 153.7       | LOS F            | 138.0             | 3657.6    | 1.00      | 3.41                | 5.99             | 10.9        |
| Approach                                   |      | 1244          | 7.5    | 1353          | 7.5    | 1.293     | 154.0       | LOS F            | 138.0             | 3657.6    | 1.00      | 3.41                | 5.99             | 11.0        |
| SouthWest: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5bx                                        | L3   | 31            | 0.0    | 34            | 0.0    | 0.286     | 16.9        | LOS C            | 2.6               | 65.3      | 1.00      | 0.92                | 1.00             | 34.8        |
| 12ax                                       | R1   | 52            | 0.0    | 57            | 0.0    | 0.286     | 16.9        | LOS C            | 2.6               | 65.3      | 1.00      | 0.92                | 1.00             | 30.2        |
| 12x                                        | R2   | 1             | 0.0    | 1             | 0.0    | 0.286     | 16.9        | LOS C            | 2.6               | 65.3      | 1.00      | 0.92                | 1.00             | 29.6        |
| 12bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.286     | 16.9        | LOS C            | 2.6               | 65.3      | 1.00      | 0.92                | 1.00             | 29.4        |
| Approach                                   |      | 85            | 0.0    | 92            | 0.0    | 0.286     | 16.9        | LOS C            | 2.6               | 65.3      | 1.00      | 0.92                | 1.00             | 31.7        |
| All Vehicles                               |      | 2274          | 4.7    | 2483          | 4.7    | 1.293     | 92.1        | LOS F            | 138.0             | 3657.6    | 0.91      | 2.19                | 3.72             | 15.9        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

# MOVEMENT SUMMARY

 Site: 101 [2030 AM (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance               |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|--------------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                     | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                            |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1                         |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.896     | 41.2        | LOS E            | 18.8              | 476.9     | 1.00      | 1.60                | 2.58             | 26.3        |
| 3                                          | L2   | 265           | 2.0    | 288           | 2.0    | 0.896     | 41.3        | LOS E            | 18.8              | 476.9     | 1.00      | 1.60                | 2.58             | 25.0        |
| 18                                         | R2   | 233           | 2.0    | 253           | 2.0    | 0.896     | 41.3        | LOS E            | 18.8              | 476.9     | 1.00      | 1.60                | 2.58             | 22.9        |
| 18b                                        | R3   | 1             | 0.0    | 1             | 0.0    | 0.896     | 41.2        | LOS E            | 18.8              | 476.9     | 1.00      | 1.60                | 2.58             | 22.3        |
| Approach                                   |      | 500           | 2.0    | 543           | 2.0    | 0.896     | 41.3        | LOS E            | 18.8              | 476.9     | 1.00      | 1.60                | 2.58             | 24.0        |
| SouthEast: Dana Drive                      |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3bx                                        | L3   | 1             | 0.0    | 1             | 0.0    | 0.059     | 9.6         | LOS A            | 0.5               | 12.6      | 1.00      | 0.79                | 1.00             | 40.1        |
| 3x                                         | L2   | 1             | 0.0    | 1             | 0.0    | 0.059     | 9.6         | LOS A            | 0.5               | 12.6      | 1.00      | 0.79                | 1.00             | 38.9        |
| 3ax                                        | L1   | 16            | 0.0    | 17            | 0.0    | 0.059     | 9.6         | LOS A            | 0.5               | 12.6      | 1.00      | 0.79                | 1.00             | 36.8        |
| 18bx                                       | R3   | 3             | 33.0   | 3             | 33.0   | 0.059     | 14.1        | LOS B            | 0.5               | 12.6      | 1.00      | 0.79                | 1.00             | 31.6        |
| Approach                                   |      | 21            | 4.7    | 23            | 4.7    | 0.059     | 10.2        | LOS B            | 0.5               | 12.6      | 1.00      | 0.79                | 1.00             | 36.2        |
| East: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 1.359     | 182.9       | LOS F            | 141.6             | 3598.8    | 1.00      | 4.08                | 7.97             | 10.3        |
| 1                                          | L2   | 80            | 2.0    | 87            | 2.0    | 1.359     | 183.0       | LOS F            | 141.6             | 3598.8    | 1.00      | 4.08                | 7.97             | 10.3        |
| 1a                                         | L1   | 94            | 3.0    | 113           | 3.0    | 1.359     | 183.1       | LOS F            | 141.6             | 3598.8    | 1.00      | 4.08                | 7.97             | 10.2        |
| 6                                          | T1   | 1043          | 2.0    | 1134          | 2.0    | 1.359     | 183.0       | LOS F            | 141.6             | 3598.8    | 1.00      | 4.08                | 7.97             | 9.8         |
| Approach                                   |      | 1218          | 2.1    | 1335          | 2.1    | 1.359     | 183.0       | LOS F            | 141.6             | 3598.8    | 1.00      | 4.08                | 7.97             | 9.8         |
| West: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                          | T1   | 466           | 4.0    | 561           | 4.0    | 0.637     | 11.2        | LOS B            | 6.9               | 178.4     | 0.66      | 0.42                | 0.66             | 33.9        |
| 12a                                        | R1   | 11            | 11.0   | 12            | 11.0   | 0.637     | 11.5        | LOS B            | 6.9               | 178.4     | 0.66      | 0.42                | 0.66             | 33.4        |
| 12                                         | R2   | 90            | 2.0    | 98            | 2.0    | 0.637     | 11.2        | LOS B            | 6.9               | 178.4     | 0.66      | 0.42                | 0.66             | 33.5        |
| 12b                                        | R3   | 83            | 3.0    | 100           | 3.0    | 0.637     | 11.2        | LOS B            | 6.9               | 178.4     | 0.66      | 0.42                | 0.66             | 32.9        |
| Approach                                   |      | 650           | 3.7    | 771           | 3.7    | 0.637     | 11.2        | LOS B            | 6.9               | 178.4     | 0.66      | 0.42                | 0.66             | 33.7        |
| SouthWest: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5bx                                        | L3   | 97            | 9.0    | 117           | 9.0    | 0.273     | 7.6         | LOS A            | 2.0               | 54.2      | 0.84      | 0.73                | 0.84             | 37.7        |
| 12ax                                       | R1   | 80            | 10.0   | 96            | 10.0   | 0.273     | 7.7         | LOS A            | 2.0               | 54.2      | 0.84      | 0.73                | 0.84             | 33.4        |
| 12x                                        | R2   | 1             | 0.0    | 1             | 0.0    | 0.273     | 7.1         | LOS A            | 2.0               | 54.2      | 0.84      | 0.73                | 0.84             | 32.7        |
| 12bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.273     | 7.1         | LOS A            | 2.0               | 54.2      | 0.84      | 0.73                | 0.84             | 32.5        |
| Approach                                   |      | 179           | 9.3    | 216           | 9.3    | 0.273     | 7.6         | LOS A            | 2.0               | 54.2      | 0.84      | 0.73                | 0.84             | 35.6        |
| All Vehicles                               |      | 2568          | 3.0    | 2888          | 3.1    | 1.359     | 96.0        | LOS F            | 141.6             | 3598.8    | 0.90      | 2.36                | 4.42             | 15.4        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

# MOVEMENT SUMMARY

 Site: 101 [2030 PM (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance               |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|--------------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                     | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                            |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1                         |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.843     | 43.6        | LOS E            | 13.5              | 342.1     | 1.00      | 1.45                | 2.21             | 25.7        |
| 3                                          | L2   | 176           | 2.0    | 191           | 2.0    | 0.843     | 43.8        | LOS E            | 13.5              | 342.1     | 1.00      | 1.45                | 2.21             | 24.4        |
| 18                                         | R2   | 154           | 2.0    | 167           | 2.0    | 0.843     | 43.8        | LOS E            | 13.5              | 342.1     | 1.00      | 1.45                | 2.21             | 22.3        |
| 18b                                        | R3   | 1             | 0.0    | 1             | 0.0    | 0.843     | 43.6        | LOS E            | 13.5              | 342.1     | 1.00      | 1.45                | 2.21             | 21.8        |
| Approach                                   |      | 332           | 2.0    | 361           | 2.0    | 0.843     | 43.8        | LOS E            | 13.5              | 342.1     | 1.00      | 1.45                | 2.21             | 23.4        |
| SouthEast: Dana Drive                      |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3bx                                        | L3   | 1             | 0.0    | 1             | 0.0    | 0.033     | 9.4         | LOS A            | 0.3               | 7.1       | 1.00      | 0.74                | 1.00             | 40.4        |
| 3x                                         | L2   | 1             | 0.0    | 1             | 0.0    | 0.033     | 9.4         | LOS A            | 0.3               | 7.1       | 1.00      | 0.74                | 1.00             | 39.2        |
| 3ax                                        | L1   | 9             | 0.0    | 10            | 0.0    | 0.033     | 9.4         | LOS A            | 0.3               | 7.1       | 1.00      | 0.74                | 1.00             | 37.1        |
| 18bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.033     | 9.4         | LOS A            | 0.3               | 7.1       | 1.00      | 0.74                | 1.00             | 32.1        |
| Approach                                   |      | 12            | 0.0    | 13            | 0.0    | 0.033     | 9.4         | LOS A            | 0.3               | 7.1       | 1.00      | 0.74                | 1.00             | 37.0        |
| East: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.708     | 13.7        | LOS B            | 11.3              | 286.6     | 0.81      | 0.70                | 1.01             | 37.6        |
| 1                                          | L2   | 253           | 2.0    | 275           | 2.0    | 0.708     | 13.8        | LOS B            | 11.3              | 286.6     | 0.81      | 0.70                | 1.01             | 37.7        |
| 1a                                         | L1   | 33            | 0.0    | 36            | 0.0    | 0.708     | 13.7        | LOS B            | 11.3              | 286.6     | 0.81      | 0.70                | 1.01             | 37.1        |
| 6                                          | T1   | 459           | 1.0    | 510           | 1.0    | 0.708     | 13.8        | LOS B            | 11.3              | 286.6     | 0.81      | 0.70                | 1.01             | 31.6        |
| Approach                                   |      | 746           | 1.3    | 822           | 1.3    | 0.708     | 13.8        | LOS B            | 11.3              | 286.6     | 0.81      | 0.70                | 1.01             | 33.7        |
| West: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                          | T1   | 1035          | 9.0    | 1125          | 9.0    | 1.470     | 230.7       | LOS F            | 184.5             | 4884.1    | 1.00      | 4.40                | 8.14             | 8.1         |
| 12a                                        | R1   | 16            | 8.0    | 18            | 8.0    | 1.470     | 230.7       | LOS F            | 184.5             | 4884.1    | 1.00      | 4.40                | 8.14             | 8.1         |
| 12                                         | R2   | 288           | 2.0    | 313           | 2.0    | 1.470     | 230.4       | LOS F            | 184.5             | 4884.1    | 1.00      | 4.40                | 8.14             | 8.1         |
| 12b                                        | R3   | 27            | 0.0    | 29            | 0.0    | 1.470     | 230.3       | LOS F            | 184.5             | 4884.1    | 1.00      | 4.40                | 8.14             | 8.0         |
| Approach                                   |      | 1366          | 7.3    | 1485          | 7.3    | 1.470     | 230.6       | LOS F            | 184.5             | 4884.1    | 1.00      | 4.40                | 8.14             | 8.1         |
| SouthWest: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5bx                                        | L3   | 33            | 0.0    | 36            | 0.0    | 0.313     | 17.0        | LOS C            | 2.9               | 73.1      | 1.00      | 0.92                | 1.00             | 34.9        |
| 12ax                                       | R1   | 62            | 0.0    | 67            | 0.0    | 0.313     | 17.0        | LOS C            | 2.9               | 73.1      | 1.00      | 0.92                | 1.00             | 30.2        |
| 12x                                        | R2   | 1             | 0.0    | 1             | 0.0    | 0.313     | 17.0        | LOS C            | 2.9               | 73.1      | 1.00      | 0.92                | 1.00             | 29.6        |
| 12bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.313     | 17.0        | LOS C            | 2.9               | 73.1      | 1.00      | 0.92                | 1.00             | 29.4        |
| Approach                                   |      | 97            | 0.0    | 105           | 0.0    | 0.313     | 17.0        | LOS C            | 2.9               | 73.1      | 1.00      | 0.92                | 1.00             | 31.7        |
| All Vehicles                               |      | 2553          | 4.6    | 2787          | 4.5    | 1.470     | 133.3       | LOS F            | 184.5             | 4884.1    | 0.94      | 2.78                | 4.96             | 12.5        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

# MOVEMENT SUMMARY

 Site: 101 [2035 AM (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance               |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|--------------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                     | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                            |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1                         |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 1.168     | 117.4       | LOS F            | 52.8              | 1340.6    | 1.00      | 2.66                | 5.39             | 14.6        |
| 3                                          | L2   | 329           | 2.0    | 358           | 2.0    | 1.168     | 117.6       | LOS F            | 52.8              | 1340.6    | 1.00      | 2.66                | 5.39             | 14.2        |
| 18                                         | R2   | 290           | 2.0    | 315           | 2.0    | 1.168     | 117.6       | LOS F            | 52.8              | 1340.6    | 1.00      | 2.66                | 5.39             | 13.4        |
| 18b                                        | R3   | 1             | 0.0    | 1             | 0.0    | 1.168     | 117.4       | LOS F            | 52.8              | 1340.6    | 1.00      | 2.66                | 5.39             | 13.2        |
| Approach                                   |      | 621           | 2.0    | 675           | 2.0    | 1.168     | 117.6       | LOS F            | 52.8              | 1340.6    | 1.00      | 2.66                | 5.39             | 13.8        |
| SouthEast: Dana Drive                      |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3bx                                        | L3   | 1             | 0.0    | 1             | 0.0    | 0.080     | 11.9        | LOS B            | 0.6               | 16.9      | 1.00      | 0.83                | 1.00             | 38.6        |
| 3x                                         | L2   | 1             | 0.0    | 1             | 0.0    | 0.080     | 11.9        | LOS B            | 0.6               | 16.9      | 1.00      | 0.83                | 1.00             | 37.6        |
| 3ax                                        | L1   | 17            | 0.0    | 18            | 0.0    | 0.080     | 11.9        | LOS B            | 0.6               | 16.9      | 1.00      | 0.83                | 1.00             | 35.6        |
| 18bx                                       | R3   | 4             | 33.0   | 4             | 33.0   | 0.080     | 17.4        | LOS C            | 0.6               | 16.9      | 1.00      | 0.83                | 1.00             | 30.7        |
| Approach                                   |      | 23            | 5.7    | 25            | 5.7    | 0.080     | 12.8        | LOS B            | 0.6               | 16.9      | 1.00      | 0.83                | 1.00             | 34.8        |
| East: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 1.488     | 238.6       | LOS F            | 180.7             | 4593.9    | 1.00      | 4.78                | 9.55             | 8.3         |
| 1                                          | L2   | 98            | 2.0    | 107           | 2.0    | 1.488     | 238.6       | LOS F            | 180.7             | 4593.9    | 1.00      | 4.78                | 9.55             | 8.3         |
| 1a                                         | L1   | 109           | 3.0    | 131           | 3.0    | 1.488     | 238.7       | LOS F            | 180.7             | 4593.9    | 1.00      | 4.78                | 9.55             | 8.3         |
| 6                                          | T1   | 1137          | 2.0    | 1236          | 2.0    | 1.488     | 238.6       | LOS F            | 180.7             | 4593.9    | 1.00      | 4.78                | 9.55             | 8.0         |
| Approach                                   |      | 1345          | 2.1    | 1475          | 2.1    | 1.488     | 238.6       | LOS F            | 180.7             | 4593.9    | 1.00      | 4.78                | 9.55             | 8.0         |
| West: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                          | T1   | 500           | 4.0    | 602           | 4.0    | 0.681     | 12.3        | LOS B            | 7.9               | 203.8     | 0.72      | 0.46                | 0.72             | 33.4        |
| 12a                                        | R1   | 12            | 11.0   | 13            | 11.0   | 0.681     | 12.5        | LOS B            | 7.9               | 203.8     | 0.72      | 0.46                | 0.72             | 32.9        |
| 12                                         | R2   | 111           | 2.0    | 121           | 2.0    | 0.681     | 12.2        | LOS B            | 7.9               | 203.8     | 0.72      | 0.46                | 0.72             | 33.0        |
| 12b                                        | R3   | 90            | 3.0    | 108           | 3.0    | 0.681     | 12.3        | LOS B            | 7.9               | 203.8     | 0.72      | 0.46                | 0.72             | 32.4        |
| Approach                                   |      | 713           | 3.7    | 845           | 3.7    | 0.681     | 12.3        | LOS B            | 7.9               | 203.8     | 0.72      | 0.46                | 0.72             | 33.2        |
| SouthWest: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5bx                                        | L3   | 105           | 9.0    | 127           | 9.0    | 0.317     | 8.6         | LOS A            | 2.5               | 67.2      | 0.90      | 0.80                | 0.90             | 37.2        |
| 12ax                                       | R1   | 89            | 10.0   | 107           | 10.0   | 0.317     | 8.7         | LOS A            | 2.5               | 67.2      | 0.90      | 0.80                | 0.90             | 33.0        |
| 12x                                        | R2   | 1             | 0.0    | 1             | 0.0    | 0.317     | 8.1         | LOS A            | 2.5               | 67.2      | 0.90      | 0.80                | 0.90             | 32.3        |
| 12bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.317     | 8.1         | LOS A            | 2.5               | 67.2      | 0.90      | 0.80                | 0.90             | 32.1        |
| Approach                                   |      | 196           | 9.4    | 236           | 9.4    | 0.317     | 8.6         | LOS A            | 2.5               | 67.2      | 0.90      | 0.80                | 0.90             | 35.1        |
| All Vehicles                               |      | 2898          | 3.0    | 3255          | 3.0    | 1.488     | 136.4       | LOS F            | 180.7             | 4593.9    | 0.92      | 2.90                | 5.70             | 12.3        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

# MOVEMENT SUMMARY

 Site: 101 [2035 PM (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance               |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|--------------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                     | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                            |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1                         |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.903     | 48.2        | LOS E            | 18.1              | 460.4     | 1.00      | 1.59                | 2.56             | 24.5        |
| 3                                          | L2   | 218           | 2.0    | 237           | 2.0    | 0.903     | 48.4        | LOS E            | 18.1              | 460.4     | 1.00      | 1.59                | 2.56             | 23.4        |
| 18                                         | R2   | 192           | 2.0    | 209           | 2.0    | 0.903     | 48.4        | LOS E            | 18.1              | 460.4     | 1.00      | 1.59                | 2.56             | 21.5        |
| 18b                                        | R3   | 1             | 0.0    | 1             | 0.0    | 0.903     | 48.2        | LOS E            | 18.1              | 460.4     | 1.00      | 1.59                | 2.56             | 21.0        |
| Approach                                   |      | 412           | 2.0    | 448           | 2.0    | 0.903     | 48.4        | LOS E            | 18.1              | 460.4     | 1.00      | 1.59                | 2.56             | 22.4        |
| SouthEast: Dana Drive                      |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3bx                                        | L3   | 1             | 0.0    | 1             | 0.0    | 0.035     | 9.1         | LOS A            | 0.3               | 7.7       | 1.00      | 0.73                | 1.00             | 40.5        |
| 3x                                         | L2   | 1             | 0.0    | 1             | 0.0    | 0.035     | 9.1         | LOS A            | 0.3               | 7.7       | 1.00      | 0.73                | 1.00             | 39.4        |
| 3ax                                        | L1   | 10            | 0.0    | 11            | 0.0    | 0.035     | 9.1         | LOS A            | 0.3               | 7.7       | 1.00      | 0.73                | 1.00             | 37.2        |
| 18bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.035     | 9.1         | LOS A            | 0.3               | 7.7       | 1.00      | 0.73                | 1.00             | 32.2        |
| Approach                                   |      | 13            | 0.0    | 14            | 0.0    | 0.035     | 9.1         | LOS A            | 0.3               | 7.7       | 1.00      | 0.73                | 1.00             | 37.2        |
| East: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.816     | 19.3        | LOS C            | 21.5              | 542.1     | 0.97      | 1.08                | 1.61             | 34.6        |
| 1                                          | L2   | 320           | 2.0    | 348           | 2.0    | 0.816     | 19.4        | LOS C            | 21.5              | 542.1     | 0.97      | 1.08                | 1.61             | 34.7        |
| 1a                                         | L1   | 41            | 0.0    | 45            | 0.0    | 0.816     | 19.3        | LOS C            | 21.5              | 542.1     | 0.97      | 1.08                | 1.61             | 34.2        |
| 6                                          | T1   | 490           | 1.0    | 544           | 1.0    | 0.816     | 19.3        | LOS C            | 21.5              | 542.1     | 0.97      | 1.08                | 1.61             | 29.5        |
| Approach                                   |      | 852           | 1.3    | 938           | 1.3    | 0.816     | 19.3        | LOS C            | 21.5              | 542.1     | 0.97      | 1.08                | 1.61             | 31.5        |
| West: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                          | T1   | 1108          | 9.0    | 1204          | 9.0    | 1.723     | 343.1       | LOS F            | 247.9             | 6552.1    | 1.00      | 5.49                | 10.74            | 5.8         |
| 12a                                        | R1   | 17            | 8.0    | 19            | 8.0    | 1.723     | 343.1       | LOS F            | 247.9             | 6552.1    | 1.00      | 5.49                | 10.74            | 5.8         |
| 12                                         | R2   | 363           | 2.0    | 395           | 2.0    | 1.723     | 342.8       | LOS F            | 247.9             | 6552.1    | 1.00      | 5.49                | 10.74            | 5.8         |
| 12b                                        | R3   | 30            | 0.0    | 33            | 0.0    | 1.723     | 342.7       | LOS F            | 247.9             | 6552.1    | 1.00      | 5.49                | 10.74            | 5.8         |
| Approach                                   |      | 1518          | 7.1    | 1650          | 7.1    | 1.723     | 343.0       | LOS F            | 247.9             | 6552.1    | 1.00      | 5.49                | 10.74            | 5.8         |
| SouthWest: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5bx                                        | L3   | 36            | 0.0    | 39            | 0.0    | 0.348     | 17.1        | LOS C            | 3.4               | 83.8      | 1.00      | 0.92                | 1.00             | 34.9        |
| 12ax                                       | R1   | 76            | 0.0    | 83            | 0.0    | 0.348     | 17.1        | LOS C            | 3.4               | 83.8      | 1.00      | 0.92                | 1.00             | 30.3        |
| 12x                                        | R2   | 1             | 0.0    | 1             | 0.0    | 0.348     | 17.1        | LOS C            | 3.4               | 83.8      | 1.00      | 0.92                | 1.00             | 29.6        |
| 12bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.348     | 17.1        | LOS C            | 3.4               | 83.8      | 1.00      | 0.92                | 1.00             | 29.5        |
| Approach                                   |      | 114           | 0.0    | 124           | 0.0    | 0.348     | 17.1        | LOS C            | 3.4               | 83.8      | 1.00      | 0.92                | 1.00             | 31.6        |
| All Vehicles                               |      | 2909          | 4.4    | 3175          | 4.4    | 1.723     | 191.6       | LOS F            | 247.9             | 6552.1    | 0.99      | 3.44                | 6.47             | 9.6         |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).



## MULTILANE ROUNDABOUT

# MOVEMENT SUMMARY

 Site: 101 [2025 AM (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance               |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|--------------------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                     | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                            |      | [ Total veh/h | HV % | [ Total veh/h | HV % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1                         |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3b                                         | L3   | 1             | 0.0  | 1             | 0.0  | 0.248     | 6.3         | LOS A            | 1.1               | 28.1      | 0.58      | 0.55                | 0.58             | 39.6        |
| 3                                          | L2   | 210           | 2.0  | 228           | 2.0  | 0.248     | 6.4         | LOS A            | 1.1               | 28.1      | 0.58      | 0.55                | 0.58             | 36.9        |
| 18                                         | R2   | 185           | 2.0  | 201           | 2.0  | 0.248     | 7.2         | LOS A            | 1.1               | 27.4      | 0.59      | 0.58                | 0.59             | 35.1        |
| 18b                                        | R3   | 1             | 0.0  | 1             | 0.0  | 0.248     | 7.0         | LOS A            | 1.1               | 27.4      | 0.59      | 0.58                | 0.59             | 33.6        |
| Approach                                   |      | 397           | 2.0  | 432           | 2.0  | 0.248     | 6.8         | LOS A            | 1.1               | 28.1      | 0.59      | 0.56                | 0.59             | 36.1        |
| SouthEast: Dana Drive                      |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3bx                                        | L3   | 1             | 0.0  | 1             | 0.0  | 0.018     | 3.6         | LOS A            | 0.1               | 1.9       | 0.59      | 0.44                | 0.59             | 43.8        |
| 3x                                         | L2   | 1             | 0.0  | 1             | 0.0  | 0.018     | 3.6         | LOS A            | 0.1               | 1.9       | 0.59      | 0.44                | 0.59             | 42.5        |
| 3ax                                        | L1   | 15            | 0.0  | 16            | 0.0  | 0.018     | 3.6         | LOS A            | 0.1               | 1.9       | 0.59      | 0.44                | 0.59             | 39.9        |
| 18bx                                       | R3   | 3             | 33.0 | 3             | 33.0 | 0.007     | 8.2         | LOS A            | 0.0               | 0.8       | 0.63      | 0.51                | 0.63             | 34.1        |
| Approach                                   |      | 20            | 5.0  | 22            | 5.0  | 0.018     | 4.3         | LOS A            | 0.1               | 1.9       | 0.60      | 0.45                | 0.60             | 39.4        |
| East: Old Cornelia Highway                 |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 1b                                         | L3   | 1             | 0.0  | 1             | 0.0  | 0.508     | 9.7         | LOS A            | 3.7               | 93.3      | 0.63      | 0.55                | 0.68             | 40.8        |
| 1                                          | L2   | 62            | 2.0  | 67            | 2.0  | 0.508     | 9.8         | LOS A            | 3.7               | 93.3      | 0.63      | 0.55                | 0.68             | 40.8        |
| 1a                                         | L1   | 82            | 3.0  | 99            | 3.0  | 0.508     | 9.8         | LOS A            | 3.7               | 93.3      | 0.63      | 0.55                | 0.68             | 39.6        |
| 6                                          | T1   | 814           | 2.0  | 885           | 2.0  | 0.508     | 9.5         | LOS A            | 3.7               | 93.3      | 0.63      | 0.53                | 0.66             | 34.0        |
| Approach                                   |      | 959           | 2.1  | 1052          | 2.1  | 0.508     | 9.6         | LOS A            | 3.7               | 93.3      | 0.63      | 0.53                | 0.66             | 34.9        |
| West: Old Cornelia Highway                 |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 2                                          | T1   | 435           | 4.0  | 524           | 4.0  | 0.304     | 6.0         | LOS A            | 1.8               | 45.5      | 0.39      | 0.25                | 0.39             | 36.7        |
| 12a                                        | R1   | 11            | 11.0 | 12            | 11.0 | 0.304     | 6.1         | LOS A            | 1.8               | 45.5      | 0.39      | 0.24                | 0.39             | 36.2        |
| 12                                         | R2   | 70            | 2.0  | 76            | 2.0  | 0.304     | 5.8         | LOS A            | 1.8               | 45.5      | 0.39      | 0.24                | 0.39             | 36.4        |
| 12b                                        | R3   | 77            | 3.0  | 93            | 3.0  | 0.304     | 5.9         | LOS A            | 1.8               | 45.5      | 0.39      | 0.24                | 0.39             | 35.7        |
| Approach                                   |      | 593           | 3.8  | 705           | 3.8  | 0.304     | 6.0         | LOS A            | 1.8               | 45.5      | 0.39      | 0.25                | 0.39             | 36.5        |
| SouthWest: White Sulphur Elementary School |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 5bx                                        | L3   | 90            | 9.0  | 108           | 9.0  | 0.099     | 4.2         | LOS A            | 0.4               | 11.4      | 0.51      | 0.42                | 0.51             | 37.7        |
| 12ax                                       | R1   | 72            | 10.0 | 87            | 10.0 | 0.105     | 5.3         | LOS A            | 0.4               | 11.5      | 0.54      | 0.47                | 0.54             | 36.7        |
| 12x                                        | R2   | 1             | 0.0  | 1             | 0.0  | 0.105     | 4.8         | LOS A            | 0.4               | 11.5      | 0.54      | 0.47                | 0.54             | 35.9        |
| 12bx                                       | R3   | 1             | 0.0  | 1             | 0.0  | 0.105     | 4.8         | LOS A            | 0.4               | 11.5      | 0.54      | 0.47                | 0.54             | 35.6        |
| Approach                                   |      | 164           | 9.3  | 198           | 9.3  | 0.105     | 4.7         | LOS A            | 0.4               | 11.5      | 0.52      | 0.44                | 0.52             | 37.3        |
| All Vehicles                               |      | 2133          | 3.1  | 2408          | 3.2  | 0.508     | 7.6         | LOS A            | 3.7               | 93.3      | 0.54      | 0.45                | 0.56             | 35.8        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

# MOVEMENT SUMMARY

 Site: 101 [2025 PM (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance               |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|--------------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                     | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                            |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1                         |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.232     | 8.1         | LOS A            | 1.1               | 29.2      | 0.74      | 0.74                | 0.74             | 38.6        |
| 3                                          | L2   | 141           | 2.0    | 153           | 2.0    | 0.232     | 8.2         | LOS A            | 1.1               | 29.2      | 0.74      | 0.74                | 0.74             | 36.0        |
| 18                                         | R2   | 124           | 2.0    | 135           | 2.0    | 0.250     | 10.1        | LOS B            | 1.2               | 29.5      | 0.74      | 0.74                | 0.74             | 33.6        |
| 18b                                        | R3   | 1             | 0.0    | 1             | 0.0    | 0.250     | 9.9         | LOS A            | 1.2               | 29.5      | 0.74      | 0.74                | 0.74             | 32.2        |
| Approach                                   |      | 267           | 2.0    | 290           | 2.0    | 0.250     | 9.1         | LOS A            | 1.2               | 29.5      | 0.74      | 0.74                | 0.74             | 34.9        |
| SouthEast: Dana Drive                      |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3bx                                        | L3   | 1             | 0.0    | 1             | 0.0    | 0.014     | 4.6         | LOS A            | 0.1               | 1.8       | 0.74      | 0.55                | 0.74             | 43.0        |
| 3x                                         | L2   | 1             | 0.0    | 1             | 0.0    | 0.014     | 4.6         | LOS A            | 0.1               | 1.8       | 0.74      | 0.55                | 0.74             | 41.7        |
| 3ax                                        | L1   | 8             | 0.0    | 9             | 0.0    | 0.014     | 4.6         | LOS A            | 0.1               | 1.8       | 0.74      | 0.55                | 0.74             | 39.2        |
| 18bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.002     | 6.2         | LOS A            | 0.0               | 0.2       | 0.72      | 0.48                | 0.72             | 35.5        |
| Approach                                   |      | 11            | 0.0    | 12            | 0.0    | 0.014     | 4.8         | LOS A            | 0.1               | 1.8       | 0.73      | 0.55                | 0.73             | 39.5        |
| East: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.316     | 6.1         | LOS A            | 1.8               | 46.1      | 0.42      | 0.28                | 0.42             | 41.1        |
| 1                                          | L2   | 208           | 2.0    | 226           | 2.0    | 0.316     | 6.2         | LOS A            | 1.8               | 46.1      | 0.42      | 0.28                | 0.42             | 41.1        |
| 1a                                         | L1   | 27            | 0.0    | 29            | 0.0    | 0.316     | 6.1         | LOS A            | 1.8               | 46.1      | 0.42      | 0.28                | 0.42             | 40.3        |
| 6                                          | T1   | 431           | 1.0    | 479           | 1.0    | 0.316     | 6.0         | LOS A            | 1.8               | 46.4      | 0.42      | 0.27                | 0.42             | 35.7        |
| Approach                                   |      | 667           | 1.3    | 735           | 1.3    | 0.316     | 6.1         | LOS A            | 1.8               | 46.4      | 0.42      | 0.27                | 0.42             | 37.5        |
| West: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                          | T1   | 968           | 9.0    | 1052          | 9.0    | 0.649     | 13.0        | LOS B            | 7.8               | 210.1     | 0.67      | 0.63                | 0.88             | 33.0        |
| 12a                                        | R1   | 15            | 8.0    | 17            | 8.0    | 0.649     | 12.5        | LOS B            | 7.6               | 199.3     | 0.66      | 0.60                | 0.84             | 32.9        |
| 12                                         | R2   | 236           | 2.0    | 257           | 2.0    | 0.649     | 12.3        | LOS B            | 7.6               | 199.3     | 0.66      | 0.60                | 0.84             | 33.0        |
| 12b                                        | R3   | 25            | 0.0    | 27            | 0.0    | 0.649     | 12.2        | LOS B            | 7.6               | 199.3     | 0.66      | 0.60                | 0.84             | 32.4        |
| Approach                                   |      | 1244          | 7.5    | 1353          | 7.5    | 0.649     | 12.9        | LOS B            | 7.8               | 210.1     | 0.67      | 0.62                | 0.87             | 33.0        |
| SouthWest: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5bx                                        | L3   | 31            | 0.0    | 34            | 0.0    | 0.064     | 7.6         | LOS A            | 0.3               | 7.6       | 0.77      | 0.73                | 0.77             | 37.1        |
| 12ax                                       | R1   | 52            | 0.0    | 57            | 0.0    | 0.075     | 5.4         | LOS A            | 0.4               | 10.5      | 0.79      | 0.70                | 0.79             | 36.6        |
| 12x                                        | R2   | 1             | 0.0    | 1             | 0.0    | 0.075     | 5.4         | LOS A            | 0.4               | 10.5      | 0.79      | 0.70                | 0.79             | 35.7        |
| 12bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.075     | 5.4         | LOS A            | 0.4               | 10.5      | 0.79      | 0.70                | 0.79             | 35.4        |
| Approach                                   |      | 85            | 0.0    | 92            | 0.0    | 0.075     | 6.2         | LOS A            | 0.4               | 10.5      | 0.78      | 0.71                | 0.78             | 36.8        |
| All Vehicles                               |      | 2274          | 4.7    | 2483          | 4.7    | 0.649     | 10.1        | LOS B            | 7.8               | 210.1     | 0.61      | 0.54                | 0.72             | 34.7        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

# MOVEMENT SUMMARY

 Site: 101 [2030 AM (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance               |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|--------------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                     | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                            |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1                         |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.315     | 7.2         | LOS A            | 1.5               | 37.8      | 0.62      | 0.61                | 0.62             | 39.1        |
| 3                                          | L2   | 265           | 2.0    | 288           | 2.0    | 0.315     | 7.3         | LOS A            | 1.5               | 37.8      | 0.62      | 0.61                | 0.62             | 36.5        |
| 18                                         | R2   | 233           | 2.0    | 253           | 2.0    | 0.322     | 8.3         | LOS A            | 1.5               | 37.4      | 0.64      | 0.64                | 0.64             | 34.5        |
| 18b                                        | R3   | 1             | 0.0    | 1             | 0.0    | 0.322     | 8.2         | LOS A            | 1.5               | 37.4      | 0.64      | 0.64                | 0.64             | 33.1        |
| Approach                                   |      | 500           | 2.0    | 543           | 2.0    | 0.322     | 7.8         | LOS A            | 1.5               | 37.8      | 0.63      | 0.62                | 0.63             | 35.6        |
| SouthEast: Dana Drive                      |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3bx                                        | L3   | 1             | 0.0    | 1             | 0.0    | 0.020     | 3.8         | LOS A            | 0.1               | 2.3       | 0.64      | 0.49                | 0.64             | 43.6        |
| 3x                                         | L2   | 1             | 0.0    | 1             | 0.0    | 0.020     | 3.8         | LOS A            | 0.1               | 2.3       | 0.64      | 0.49                | 0.64             | 42.2        |
| 3ax                                        | L1   | 16            | 0.0    | 17            | 0.0    | 0.020     | 3.8         | LOS A            | 0.1               | 2.3       | 0.64      | 0.49                | 0.64             | 39.7        |
| 18bx                                       | R3   | 3             | 33.0   | 3             | 33.0   | 0.007     | 8.0         | LOS A            | 0.0               | 0.8       | 0.66      | 0.53                | 0.66             | 34.2        |
| Approach                                   |      | 21            | 4.7    | 23            | 4.7    | 0.020     | 4.4         | LOS A            | 0.1               | 2.3       | 0.64      | 0.49                | 0.64             | 39.3        |
| East: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.673     | 14.5        | LOS B            | 9.0               | 228.3     | 0.80      | 0.91                | 1.24             | 37.8        |
| 1                                          | L2   | 80            | 2.0    | 87            | 2.0    | 0.673     | 14.6        | LOS B            | 9.0               | 228.3     | 0.80      | 0.91                | 1.24             | 37.8        |
| 1a                                         | L1   | 94            | 3.0    | 113           | 3.0    | 0.673     | 14.7        | LOS B            | 9.0               | 228.3     | 0.80      | 0.91                | 1.24             | 36.7        |
| 6                                          | T1   | 1043          | 2.0    | 1134          | 2.0    | 0.673     | 14.1        | LOS B            | 9.1               | 232.3     | 0.79      | 0.89                | 1.22             | 32.0        |
| Approach                                   |      | 1218          | 2.1    | 1335          | 2.1    | 0.673     | 14.2        | LOS B            | 9.1               | 232.3     | 0.79      | 0.89                | 1.22             | 32.7        |
| West: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                          | T1   | 466           | 4.0    | 561           | 4.0    | 0.340     | 6.6         | LOS A            | 2.1               | 54.8      | 0.46      | 0.31                | 0.46             | 36.3        |
| 12a                                        | R1   | 11            | 11.0   | 12            | 11.0   | 0.340     | 6.6         | LOS A            | 2.1               | 54.8      | 0.45      | 0.30                | 0.45             | 36.0        |
| 12                                         | R2   | 90            | 2.0    | 98            | 2.0    | 0.340     | 6.3         | LOS A            | 2.1               | 54.8      | 0.45      | 0.30                | 0.45             | 36.2        |
| 12b                                        | R3   | 83            | 3.0    | 100           | 3.0    | 0.340     | 6.4         | LOS A            | 2.1               | 54.8      | 0.45      | 0.30                | 0.45             | 35.4        |
| Approach                                   |      | 650           | 3.7    | 771           | 3.7    | 0.340     | 6.5         | LOS A            | 2.1               | 54.8      | 0.46      | 0.31                | 0.46             | 36.2        |
| SouthWest: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5bx                                        | L3   | 97            | 9.0    | 117           | 9.0    | 0.109     | 4.3         | LOS A            | 0.5               | 13.0      | 0.55      | 0.46                | 0.55             | 37.6        |
| 12ax                                       | R1   | 80            | 10.0   | 96            | 10.0   | 0.121     | 5.7         | LOS A            | 0.5               | 13.7      | 0.57      | 0.52                | 0.57             | 36.5        |
| 12x                                        | R2   | 1             | 0.0    | 1             | 0.0    | 0.121     | 5.1         | LOS A            | 0.5               | 13.7      | 0.57      | 0.52                | 0.57             | 35.7        |
| 12bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.121     | 5.1         | LOS A            | 0.5               | 13.7      | 0.57      | 0.52                | 0.57             | 35.4        |
| Approach                                   |      | 179           | 9.3    | 216           | 9.3    | 0.121     | 4.9         | LOS A            | 0.5               | 13.7      | 0.56      | 0.49                | 0.56             | 37.1        |
| All Vehicles                               |      | 2568          | 3.0    | 2888          | 3.1    | 0.673     | 10.2        | LOS B            | 9.1               | 232.3     | 0.65      | 0.65                | 0.85             | 34.5        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

# MOVEMENT SUMMARY

 Site: 101 [2030 PM (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance               |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|--------------------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                     | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                            |      | [ Total veh/h | HV % | [ Total veh/h | HV % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1                         |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3b                                         | L3   | 1             | 0.0  | 1             | 0.0  | 0.313     | 9.9         | LOS A            | 1.7               | 42.8      | 0.81      | 0.81                | 0.81             | 37.6        |
| 3                                          | L2   | 176           | 2.0  | 191           | 2.0  | 0.313     | 10.1        | LOS B            | 1.7               | 42.8      | 0.81      | 0.81                | 0.81             | 35.1        |
| 18                                         | R2   | 154           | 2.0  | 167           | 2.0  | 0.345     | 13.0        | LOS B            | 1.8               | 46.4      | 0.80      | 0.84                | 0.91             | 32.2        |
| 18b                                        | R3   | 1             | 0.0  | 1             | 0.0  | 0.345     | 12.8        | LOS B            | 1.8               | 46.4      | 0.80      | 0.84                | 0.91             | 31.0        |
| Approach                                   |      | 332           | 2.0  | 361           | 2.0  | 0.345     | 11.4        | LOS B            | 1.8               | 46.4      | 0.81      | 0.82                | 0.86             | 33.8        |
| SouthEast: Dana Drive                      |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3bx                                        | L3   | 1             | 0.0  | 1             | 0.0  | 0.017     | 5.1         | LOS A            | 0.1               | 2.3       | 0.80      | 0.61                | 0.80             | 42.7        |
| 3x                                         | L2   | 1             | 0.0  | 1             | 0.0  | 0.017     | 5.1         | LOS A            | 0.1               | 2.3       | 0.80      | 0.61                | 0.80             | 41.4        |
| 3ax                                        | L1   | 9             | 0.0  | 10            | 0.0  | 0.017     | 5.1         | LOS A            | 0.1               | 2.3       | 0.80      | 0.61                | 0.80             | 39.0        |
| 18bx                                       | R3   | 1             | 0.0  | 1             | 0.0  | 0.002     | 6.3         | LOS A            | 0.0               | 0.2       | 0.78      | 0.51                | 0.78             | 35.4        |
| Approach                                   |      | 12            | 0.0  | 13            | 0.0  | 0.017     | 5.2         | LOS A            | 0.1               | 2.3       | 0.80      | 0.60                | 0.80             | 39.2        |
| East: Old Cornelia Highway                 |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 1b                                         | L3   | 1             | 0.0  | 1             | 0.0  | 0.361     | 6.8         | LOS A            | 2.2               | 55.8      | 0.49      | 0.34                | 0.49             | 40.3        |
| 1                                          | L2   | 253           | 2.0  | 275           | 2.0  | 0.361     | 6.9         | LOS A            | 2.2               | 55.8      | 0.49      | 0.34                | 0.49             | 40.3        |
| 1a                                         | L1   | 33            | 0.0  | 36            | 0.0  | 0.361     | 6.8         | LOS A            | 2.2               | 55.8      | 0.49      | 0.34                | 0.49             | 39.6        |
| 6                                          | T1   | 459           | 1.0  | 510           | 1.0  | 0.361     | 6.6         | LOS A            | 2.2               | 56.5      | 0.48      | 0.33                | 0.48             | 35.5        |
| Approach                                   |      | 746           | 1.3  | 822           | 1.3  | 0.361     | 6.7         | LOS A            | 2.2               | 56.5      | 0.48      | 0.34                | 0.48             | 37.3        |
| West: Old Cornelia Highway                 |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 2                                          | T1   | 1035          | 9.0  | 1125          | 9.0  | 0.735     | 16.7        | LOS C            | 12.9              | 336.6     | 0.80      | 0.92                | 1.31             | 31.4        |
| 12a                                        | R1   | 16            | 8.0  | 18            | 8.0  | 0.735     | 15.8        | LOS C            | 12.9              | 336.6     | 0.79      | 0.88                | 1.27             | 31.4        |
| 12                                         | R2   | 288           | 2.0  | 313           | 2.0  | 0.735     | 15.6        | LOS C            | 12.9              | 336.6     | 0.79      | 0.88                | 1.27             | 31.5        |
| 12b                                        | R3   | 27            | 0.0  | 29            | 0.0  | 0.735     | 15.5        | LOS C            | 12.9              | 336.6     | 0.79      | 0.88                | 1.27             | 31.0        |
| Approach                                   |      | 1366          | 7.3  | 1485          | 7.3  | 0.735     | 16.4        | LOS C            | 12.9              | 338.5     | 0.80      | 0.91                | 1.30             | 31.4        |
| SouthWest: White Sulphur Elementary School |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 5bx                                        | L3   | 33            | 0.0  | 36            | 0.0  | 0.077     | 8.9         | LOS A            | 0.4               | 10.0      | 0.83      | 0.80                | 0.83             | 36.5        |
| 12ax                                       | R1   | 62            | 0.0  | 67            | 0.0  | 0.103     | 6.5         | LOS A            | 0.6               | 16.0      | 0.87      | 0.80                | 0.87             | 36.1        |
| 12x                                        | R2   | 1             | 0.0  | 1             | 0.0  | 0.103     | 6.5         | LOS A            | 0.6               | 16.0      | 0.87      | 0.80                | 0.87             | 35.2        |
| 12bx                                       | R3   | 1             | 0.0  | 1             | 0.0  | 0.103     | 6.5         | LOS A            | 0.6               | 16.0      | 0.87      | 0.80                | 0.87             | 35.0        |
| Approach                                   |      | 97            | 0.0  | 105           | 0.0  | 0.103     | 7.3         | LOS A            | 0.6               | 16.0      | 0.86      | 0.80                | 0.86             | 36.2        |
| All Vehicles                               |      | 2553          | 4.6  | 2787          | 4.5  | 0.735     | 12.5        | LOS B            | 12.9              | 338.5     | 0.71      | 0.72                | 0.98             | 33.6        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

# MOVEMENT SUMMARY

 Site: 101 [2035 AM (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance               |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|--------------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                     | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                            |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1                         |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.387     | 8.2         | LOS A            | 2.1               | 53.7      | 0.67      | 0.70                | 0.74             | 38.6        |
| 3                                          | L2   | 329           | 2.0    | 358           | 2.0    | 0.387     | 8.3         | LOS A            | 2.1               | 53.7      | 0.67      | 0.70                | 0.74             | 36.0        |
| 18                                         | R2   | 290           | 2.0    | 315           | 2.0    | 0.409     | 9.9         | LOS A            | 2.3               | 58.1      | 0.69      | 0.74                | 0.84             | 33.7        |
| 18b                                        | R3   | 1             | 0.0    | 1             | 0.0    | 0.409     | 9.8         | LOS A            | 2.3               | 58.1      | 0.69      | 0.74                | 0.84             | 32.3        |
| Approach                                   |      | 621           | 2.0    | 675           | 2.0    | 0.409     | 9.1         | LOS A            | 2.3               | 58.1      | 0.68      | 0.72                | 0.79             | 35.0        |
| SouthEast: Dana Drive                      |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3bx                                        | L3   | 1             | 0.0    | 1             | 0.0    | 0.021     | 3.9         | LOS A            | 0.1               | 2.7       | 0.70      | 0.54                | 0.70             | 43.3        |
| 3x                                         | L2   | 1             | 0.0    | 1             | 0.0    | 0.021     | 3.9         | LOS A            | 0.1               | 2.7       | 0.70      | 0.54                | 0.70             | 42.0        |
| 3ax                                        | L1   | 17            | 0.0    | 18            | 0.0    | 0.021     | 3.9         | LOS A            | 0.1               | 2.7       | 0.70      | 0.54                | 0.70             | 39.5        |
| 18bx                                       | R3   | 4             | 33.0   | 4             | 33.0   | 0.009     | 7.6         | LOS A            | 0.0               | 1.1       | 0.69      | 0.57                | 0.69             | 34.5        |
| Approach                                   |      | 23            | 5.7    | 25            | 5.7    | 0.021     | 4.6         | LOS A            | 0.1               | 2.7       | 0.70      | 0.55                | 0.70             | 38.9        |
| East: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.778     | 20.4        | LOS C            | 13.9              | 352.4     | 0.93      | 1.22                | 1.75             | 34.6        |
| 1                                          | L2   | 98            | 2.0    | 107           | 2.0    | 0.778     | 20.5        | LOS C            | 13.9              | 352.4     | 0.93      | 1.22                | 1.75             | 34.6        |
| 1a                                         | L1   | 109           | 3.0    | 131           | 3.0    | 0.778     | 20.6        | LOS C            | 13.9              | 352.4     | 0.93      | 1.22                | 1.75             | 33.7        |
| 6                                          | T1   | 1137          | 2.0    | 1236          | 2.0    | 0.778     | 19.4        | LOS C            | 14.6              | 369.6     | 0.92      | 1.19                | 1.72             | 29.8        |
| Approach                                   |      | 1345          | 2.1    | 1475          | 2.1    | 0.778     | 19.6        | LOS C            | 14.6              | 369.6     | 0.93      | 1.20                | 1.72             | 30.4        |
| West: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                          | T1   | 500           | 4.0    | 602           | 4.0    | 0.378     | 7.2         | LOS A            | 2.5               | 65.5      | 0.52      | 0.37                | 0.52             | 36.0        |
| 12a                                        | R1   | 12            | 11.0   | 13            | 11.0   | 0.378     | 7.1         | LOS A            | 2.5               | 65.5      | 0.52      | 0.36                | 0.52             | 35.7        |
| 12                                         | R2   | 111           | 2.0    | 121           | 2.0    | 0.378     | 6.8         | LOS A            | 2.5               | 65.5      | 0.52      | 0.36                | 0.52             | 35.9        |
| 12b                                        | R3   | 90            | 3.0    | 108           | 3.0    | 0.378     | 6.8         | LOS A            | 2.5               | 65.5      | 0.52      | 0.36                | 0.52             | 35.1        |
| Approach                                   |      | 713           | 3.7    | 845           | 3.7    | 0.378     | 7.1         | LOS A            | 2.5               | 65.5      | 0.52      | 0.37                | 0.52             | 35.9        |
| SouthWest: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5bx                                        | L3   | 105           | 9.0    | 127           | 9.0    | 0.117     | 4.4         | LOS A            | 0.6               | 14.8      | 0.58      | 0.50                | 0.58             | 37.6        |
| 12ax                                       | R1   | 89            | 10.0   | 107           | 10.0   | 0.139     | 6.1         | LOS A            | 0.6               | 16.4      | 0.61      | 0.57                | 0.61             | 36.3        |
| 12x                                        | R2   | 1             | 0.0    | 1             | 0.0    | 0.139     | 5.5         | LOS A            | 0.6               | 16.4      | 0.61      | 0.57                | 0.61             | 35.5        |
| 12bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.139     | 5.5         | LOS A            | 0.6               | 16.4      | 0.61      | 0.57                | 0.61             | 35.2        |
| Approach                                   |      | 196           | 9.4    | 236           | 9.4    | 0.139     | 5.2         | LOS A            | 0.6               | 16.4      | 0.59      | 0.53                | 0.59             | 37.0        |
| All Vehicles                               |      | 2898          | 3.0    | 3255          | 3.0    | 0.778     | 13.0        | LOS B            | 14.6              | 369.6     | 0.74      | 0.83                | 1.13             | 33.1        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).



# MOVEMENT SUMMARY

 Site: 101 [2035 PM (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance               |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|--------------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                     | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                            |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1                         |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.436     | 13.6        | LOS B            | 2.9               | 74.6      | 0.89      | 0.97                | 1.11             | 35.7        |
| 3                                          | L2   | 218           | 2.0    | 237           | 2.0    | 0.436     | 13.8        | LOS B            | 2.9               | 74.6      | 0.89      | 0.97                | 1.11             | 33.5        |
| 18                                         | R2   | 192           | 2.0    | 209           | 2.0    | 0.505     | 19.7        | LOS C            | 3.3               | 84.0      | 0.88      | 1.00                | 1.26             | 29.4        |
| 18b                                        | R3   | 1             | 0.0    | 1             | 0.0    | 0.505     | 19.5        | LOS C            | 3.3               | 84.0      | 0.88      | 1.00                | 1.26             | 28.3        |
| Approach                                   |      | 412           | 2.0    | 448           | 2.0    | 0.505     | 16.6        | LOS C            | 3.3               | 84.0      | 0.89      | 0.98                | 1.18             | 31.6        |
| SouthEast: Dana Drive                      |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3bx                                        | L3   | 1             | 0.0    | 1             | 0.0    | 0.021     | 5.9         | LOS A            | 0.1               | 3.3       | 0.88      | 0.69                | 0.88             | 42.3        |
| 3x                                         | L2   | 1             | 0.0    | 1             | 0.0    | 0.021     | 5.9         | LOS A            | 0.1               | 3.3       | 0.88      | 0.69                | 0.88             | 41.1        |
| 3ax                                        | L1   | 10            | 0.0    | 11            | 0.0    | 0.021     | 5.9         | LOS A            | 0.1               | 3.3       | 0.88      | 0.69                | 0.88             | 38.7        |
| 18bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.002     | 6.5         | LOS A            | 0.0               | 0.3       | 0.86      | 0.54                | 0.86             | 35.3        |
| Approach                                   |      | 13            | 0.0    | 14            | 0.0    | 0.021     | 6.0         | LOS A            | 0.1               | 3.3       | 0.88      | 0.68                | 0.88             | 38.9        |
| East: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.421     | 7.9         | LOS A            | 2.8               | 70.1      | 0.57      | 0.43                | 0.57             | 39.3        |
| 1                                          | L2   | 320           | 2.0    | 348           | 2.0    | 0.421     | 8.0         | LOS A            | 2.8               | 70.1      | 0.57      | 0.43                | 0.57             | 39.3        |
| 1a                                         | L1   | 41            | 0.0    | 45            | 0.0    | 0.421     | 7.9         | LOS A            | 2.8               | 70.1      | 0.57      | 0.43                | 0.57             | 38.7        |
| 6                                          | T1   | 490           | 1.0    | 544           | 1.0    | 0.421     | 7.5         | LOS A            | 2.8               | 71.8      | 0.56      | 0.41                | 0.56             | 35.1        |
| Approach                                   |      | 852           | 1.3    | 938           | 1.3    | 0.421     | 7.7         | LOS A            | 2.8               | 71.8      | 0.56      | 0.42                | 0.56             | 36.9        |
| West: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                          | T1   | 1108          | 9.0    | 1204          | 9.0    | 0.855     | 25.9        | LOS D            | 22.8              | 594.7     | 0.99      | 1.39                | 2.10             | 27.9        |
| 12a                                        | R1   | 17            | 8.0    | 19            | 8.0    | 0.855     | 24.2        | LOS C            | 22.8              | 594.7     | 0.98      | 1.35                | 2.04             | 28.2        |
| 12                                         | R2   | 363           | 2.0    | 395           | 2.0    | 0.855     | 24.0        | LOS C            | 22.8              | 594.7     | 0.98      | 1.35                | 2.04             | 28.3        |
| 12b                                        | R3   | 30            | 0.0    | 33            | 0.0    | 0.855     | 23.9        | LOS C            | 22.8              | 594.7     | 0.98      | 1.35                | 2.04             | 27.9        |
| Approach                                   |      | 1518          | 7.1    | 1650          | 7.1    | 0.855     | 25.4        | LOS D            | 22.8              | 594.7     | 0.99      | 1.38                | 2.08             | 28.0        |
| SouthWest: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5bx                                        | L3   | 36            | 0.0    | 39            | 0.0    | 0.102     | 11.0        | LOS B            | 0.6               | 14.6      | 0.90      | 0.89                | 0.90             | 35.5        |
| 12ax                                       | R1   | 76            | 0.0    | 83            | 0.0    | 0.162     | 9.1         | LOS A            | 1.2               | 29.0      | 0.99      | 0.93                | 0.99             | 34.7        |
| 12x                                        | R2   | 1             | 0.0    | 1             | 0.0    | 0.162     | 9.1         | LOS A            | 1.2               | 29.0      | 0.99      | 0.93                | 0.99             | 33.9        |
| 12bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.162     | 9.1         | LOS A            | 1.2               | 29.0      | 0.99      | 0.93                | 0.99             | 33.7        |
| Approach                                   |      | 114           | 0.0    | 124           | 0.0    | 0.162     | 9.7         | LOS A            | 1.2               | 29.0      | 0.96      | 0.92                | 0.96             | 35.0        |
| All Vehicles                               |      | 2909          | 4.4    | 3175          | 4.4    | 0.855     | 18.2        | LOS C            | 22.8              | 594.7     | 0.85      | 1.02                | 1.46             | 31.1        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).



# GAINESVILLE CITY SCHOOL SYSTEM

*ONE GAINESVILLE: We will inspire, nurture, challenge, and prepare our students.*

Dear Doug and members of the Planning & Appeals Board:

Thank you for the opportunity to submit comments relative to the applications of Caballero Holdings, LLC in its quest to rezone and annex properties in east Gainesville. Our comments are in two parts, general and specific.

For the record, these properties lie within our New Holland Elementary attendance zone. Several references are made to White Sulphur Elementary, owned by the Hall County School System and slated to close in two years.

In general, we view the proposed as too massive, too dense and projects to be too populated for the extended, planned growth plans in our school system. Further, with studies confirming more than 9000 apartments in our city of about 40,000, we are astonished that no market study accompanies the application verifying the need for more multi-family/apartment units. Also, there is no traffic-generation data in the application to add to the busiest corridor in the entire county, Old Cornelia Highway/Jesse Jewell Parkway/Browns Bridge Road. Clearly, the project reflects profit over pride and unestimated population over strategic planning.

With precedence in the Mundy Mill community whereby the second development company honored the commitment of the original development company to donate a suitable site for a school, nowhere in the submitted application confirms a suitable school site of twenty acres.

We maintain interest in such donation, if a preferred site is determined by our school system. It should be noted, again referencing the Mundy Mill community, the developer donated additional acreage to the original 20 acres with no obligation to the school system. Mundy Mill Learning Academy has frontage on the property's main thoroughfare as a community (+) amenity, exceptional learning, convenience and safety. We are unable to support a passing reference to a school site without much further study.

Specifically in our study, we also recommend conditions be added to the Planning Commission's consideration:

- Developer-paid traffic signals at each proposed entrance for the safety of vehicles and/or buses transporting students;
- Bus pull-off aprons in each interior pod artery;
- Prohibited weekday parking in cul-de-sacs to ensure safe and smooth bus flow;
- Honoring, in a separate certified communique to the school system, the 20-acre site proposed for an elementary school; and
- Community information sessions in Sherwood Heights, New Holland/Fair Street and Morningside Heights neighborhoods.

Thank you.

Board of Education  
Andy Stewart, Chair  
Willie Mitchell, Vice Chair  
Sammy Smith, Treasurer  
Dr. Heather Ramsey, Board Member  
Kris Nordholz, Board Member



Jeremy H. Williams, Ed.D.  
Superintendent

# GAINESVILLE CITY SCHOOL SYSTEM

**ONE GAINESVILLE:** *We will inspire, nurture, challenge, and prepare our students.*

## SIGNATURE PAGE FOR

### GAINESVILLE CITY SCHOOL DISTRICT & BOARD OF EDUCATION

Mr. Andy Stewart, Board Chair

11-1-21

Date

Mr. Willie Mitchell, Board Vice Chair

11-1-21

Date

Mr. Sammy Smith, Board Treasurer

11.1.21

Date

Dr. Heather Ramsey, Board Member

11/1/21

Date

Mr. Kris Nordholz, Board Member

11/1/21

Date

Dr. Jeremy H. Williams, Superintendent

11/1/21

Date

**Date Submitted:** 11/29/2021

**Presenter:** Matt Tate

**Item of Business:** Request from **Caballero Holdings, LLC** to amend an existing Planned Unit Development (P-U-D) zoning totaling 981.661± acres located east of Lanier Parkway (I-985), south of the intersection of Old Cornelia Highway and Dana Drive, south of Floyd Road and east of its terminus, having road frontage on the east side of Lenox Drive (a/k/a **0, 2490 and 2544 Floyd Road, SE; 0 Lenox Drive, SE; 0 Old Cornelia Highway, SE**).  
Ward Number: Three  
Tax Parcel Number(s): 15-021-000-164; 15-022-000-003M, 004, 034 and 086; 15-033-000-001  
Request: Master planned mixed-use development

**Meeting Date:** 12/14/2021

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**Purpose of Request:**

The applicant is proposing to amend an existing 981.661± acres property zoned Planned Unit Development (P-U-D) for a mixed-use community.

The proposed development known as "Gainesville Township" will include a total of 1,122 acres, 1,414 single-family detached homes, 311 townhomes, 640 multi-family units and up to 75,000 square feet of commercial space. The residential uses include single-family homes ranging from a minimum of 1,200 to 1,800 square feet; townhomes ranging from a minimum of 1,100 to 1,400 square feet; and multi-family. The development will contain a variety of different housing types and sizes and price points for all ages. A variety of community amenities are planned and 645± acres will remain as open space. Two points of access are proposed from Old Cornelia Highway. The primary access will be from the new road serving the future "The Coop" Athletic Complex. All streets that are not gated are intended to be maintained by the City. Solid waste pick-up will be provided by the City.

The property is located within the North Oconee Water Supply Watershed Protection Overlay Zone. The surrounding uses include undeveloped land, the future Melvin Cooper "The Coop" Athletic Complex, single-family homes, church, gas station, package store, Rabbit Town Café, Avita Behavioral Health Facility and White Sulphur Elementary School.

**History/Background:**

This request was tabled at the November 9, 2021 PAB meeting at the request of the applicant.

**Facts & Issues for Consideration:**

**Department Recommendation:**

Planning staff recommended approval with twenty-one conditions. See the Staff Recommendation report for details.

**Department Director:**

Rusty Ligon

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**If funding is involved, are funds approved within the current budget?**

N/A

**Amount Requested:**

**Source of Funds:**

**Finance Comments:**

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**Administrative Comments:**

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**ATTACHMENTS:**

| Description                                                                                                     | Type            |
|-----------------------------------------------------------------------------------------------------------------|-----------------|
|  Staff Recommendation Report   | Report          |
|  Location Maps                 | Backup Material |
|  Annexation Parcels            | Backup Material |
|  Narrative - Design Guidelines | Backup Material |
|  Site Plans                    | Cover Memo      |
|  Traffic Study                 | Backup Material |
|  GCSS BOE letter               | Backup Material |

**GAINESVILLE PLANNING and APPEALS BOARD  
STAFF RECOMMENDATION**

**Applicant** ..... Caballero Holdings, LLC  
**Property Owners** ..... Gainesville Vision, LLC  
**Location** ..... 0 Eberhart Cemetery Road; 2465 Floyd Road, SE; 2166, 2170 and 2210 Old Cornelia Highway; 0, 2490 and 2544 Floyd Road, SE; 0 Lenox Drive, SE; 0 Old Cornelia Highway, SE  
**Request** ..... Annex with P-U-D zoning  
 Amend existing P-U-D zoning  
**Total Acres** ..... Annexation: 140.77± acres  
 P-U-D Zoning Amendment: 981.661± acres  
**Ward** ..... Three  
**Proposed Use** ..... Master planned mixed-use community  
**Planning Division Staff Recommendation** ..... **Approval, with conditions**  
**Date** ..... December 14, 2021

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▪ **Applicant's Proposal and Background Information**

The applicant is proposing a master planned mixed-use community consisting of 1,122.43± acres known as “Gainesville Township”. The proposal includes annexing 140.77± acres with a zoning of Planned Unit Development (P-U-D). These properties consist of five parcels which are zoned Agricultural Residential-IV (AR-IV), Agricultural Residential-III (AR-III) and Residential-II (R-II) within the County.

The proposal includes amending an existing 981.661± acres tract zoned Planned Unit Development (P-U-D) consisting of six parcels. This property was originally annexed in 1998 and was known as “Shawshank” which included a golf course community. In 2001 additional acreage was annexed for what is known as “Sussex” that removed the golf course and increased the overall number of residential units. Below is a snapshot comparison of the current and proposed plan.

|                         | Current Plan | Proposed Plan | Difference | Proposed Rental          |
|-------------------------|--------------|---------------|------------|--------------------------|
| Acreage                 | 981.6        | 1,122         | +141       |                          |
| Single-Family Homes     | 977          | 1,414         | +437       | 300 (21% of Sf)          |
| Townhomes               | 197          | 311           | +114       | 233 (75% of Th)          |
| Apartments              | 1,096        | 640           | -456       | 640 (100% of Apts.)      |
| Total Residential Units | 2,270        | 2,365         | +95        | 1,173 Total rental units |
| Overall Density         | 2.35 du/acre | 2.11 du/acre  | - 0.24     |                          |
| Open Space              | 548.5 acres  | 645.3 acres   | +96.8      |                          |
| Commercial              | 24,000 sf    | 75,000 sf     | +51,000 sf |                          |



The development standard for each proposed use are listed below:

| <b>Single-family Detached Homes</b>                                             |           |          |          |          |
|---------------------------------------------------------------------------------|-----------|----------|----------|----------|
| Number of Units                                                                 | 1,414     |          |          |          |
| Number of Rental Units                                                          | 300 (21%) |          |          |          |
| Lot Width                                                                       | 40'       | 50'      | 60'      | 95'      |
| Minimum Lot Size                                                                | 4,000 SF  | 5,000 SF | 6,000 SF | 9,000 SF |
| Minimum Front Yard Setback                                                      | 20'       | 20'      | 20'      | 20'      |
| Minimum Side Yard Setback                                                       | 5'        | 5'       | 5'       | 5'       |
| Minimum Rear Yard Setback                                                       | 15'       | 15'      | 15'      | 15'      |
| Exterior Buffer                                                                 | 25'       | 25'      | 25'      | 25'      |
| Minimum Building Separation                                                     | 10'       | 10'      | 10'      | 10'      |
| Minimum SF Detached Home Width                                                  | <30'      | <40'     | <50'     | <85'     |
| Minimum Heated Square Feet per Home                                             | 1,200 SF  | 1,300 SF | 1,500 SF | 1,800 SF |
| Maximum % of SF Detached Lot Type                                               | 40%       | 60%      | 80%      | No Max   |
| The combined number of 40' and 50' wide lots shall not exceed 65% of the total. |           |          |          |          |

| <b>Single-family Attached Town Homes</b> |           |          |
|------------------------------------------|-----------|----------|
| Number of Units                          | 311       |          |
| Number of Rental Units                   | 233 (75%) |          |
| Lot Width                                | 20'       | 24'      |
| Minimum Lot Size                         | 2,000 SF  | 2,000 SF |
| Minimum Front Yard Setback               | 15'       | 20'      |
| Minimum Side Yard Setback                | 0'        | 0'       |
| Minimum Rear Yard Setback                | 0'        | 15'      |
| Exterior Buffer to Residential           | 25'       | 25'      |
| Minimum Building Separation              | 20'       | 20'      |
| Minimum Heated Square Feet per Home      | 1,100 SF  | 1,400 SF |

| <b>Multi-family Apartments</b> | Garden Style | Breezeway Style | Manor | Cottages |
|--------------------------------|--------------|-----------------|-------|----------|
|--------------------------------|--------------|-----------------|-------|----------|

|                            |     |     |     |     |
|----------------------------|-----|-----|-----|-----|
| Minimum Front Yard Setback | 30' | 30' | 10' | 10' |
| Minimum Side Yard Setback  | 20' | 20' | 10' | 5'  |
| Minimum Rear Yard Setback  | 20' | 20' | 10' | 10' |
| Building Separation        | 20' | 20' | 20' | 10' |
| Maximum Stories            | 4   | 4   | 3   | 2'  |
| Maximum Height             | 60' | 60' | 45' | 35' |

|                      |                                                                                                                                                                                                                                                                                      |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Commercial</b>    |                                                                                                                                                                                                                                                                                      |
| Gross Square footage | 75,000 sf                                                                                                                                                                                                                                                                            |
| Uses                 | Includes those uses allowed within the Neighborhood Business (N-B) zoning district, in addition to drive-thru restaurants, climate controlled storage facility, institutional residential living and care facilities serving more than 18 persons at no more than 22 units per acre. |
| Maximum Stories      | 3                                                                                                                                                                                                                                                                                    |
| Parking Ratio        | Per the Unified Land Development Code                                                                                                                                                                                                                                                |

### Access

A total of two points of access are proposed from Old Cornelia Highway. The primary access Driveway #1 will extend off the new road planned for the future "The Coop" Athletic Complex. A future Driveway #2 is proposed off of the older segment of Old Cornelia Highway next to the proposed commercial property. In addition, a driveway restricted for emergency purposes may be considered to the south off of Floyd Road. All streets are planned to be public and maintained by the City. Internal drives/streets that are gated for the townhomes or multi-family apartments will be private. Solid waste pick-up will be provided by the City as well except for the apartments and commercial uses.

### Amenities & Signage

A Central Amenity Center is proposed off of the main entrance road to the community which will include a clubhouse, swim center with lap pool with children's play area, tennis center with lighted courts, pickle ball courts, great lawn with pavilion for outdoor functions, mail kiosk and dog park, various pocket parks, disc golf, extensive trail, sidewalk and multi-use path system. Other satellite amenities may include boat/RV storage, bicycle racks, small open space cabana's with neighborhood size pools.

The project gateway entrance will include landscape, hardscape feature, signage, monumentation and lighting establishing a sense of place and arrival point. Signage will contain additional identification of "The Coop" sports complex. Smaller scale signage and monumentation elements may be placed throughout the development similar in style to the major project identification. These may be placed at the secondary access points on Old Cornelia Highway or in interior streets within the development. A maximum of two billboards, which may include electronic billboards on the property, are proposed along I-985 frontage. These billboards shall not exceed 440 square feet and 45 feet in height. All billboards are limited to project related content and must be removed within seven years of erection or 95% of project build-out, whichever occurs last.

▪ **Adjacent Land Use and Zoning**

| Location | Use                                                                                                                 | Zoning                                                                                                                                                                   |
|----------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| North    | Future “The Coop” Athletic Complex<br>White Sulphur Elementary School;<br>Single-family homes<br>Abandoned Car Wash | Planned Unit Development (P-U-D) -City<br>Agricultural Residential-III (AR-III) -County<br>Agricultural Residential-IV (AR-IV) -County<br>Highway Business (H-B)- County |
| South    | Single-family homes<br>Mobile home park<br>Vacant Land                                                              | Residential-I (R-I) -County<br>Residential-II (R-II) -County<br>Agricultural Residential-IV (AR-IV) -County                                                              |
|          | Single-family homes<br>Vacant land                                                                                  | Planned Unit Development (PUD) -City<br>Residential-I-A (R-I-A) -City                                                                                                    |
| East     | Masons Lodge<br>Single-family homes<br>Mobile Home Park                                                             | Highway Business (H-B) -County<br>Agricultural Residential-III (AR-III) -County                                                                                          |
| West     | Single-family Homes & I-985                                                                                         | Agricultural Residential-IV (AR-IV) -County<br>Residential-II (R-II) - County                                                                                            |
|          | Lenox Park                                                                                                          | Planned Unit Development (P-U-D) -City                                                                                                                                   |

The property is located within the North Oconee Water Supply Watershed Protection Overlay Zone and other surrounding uses include Rabbit Town Salvage, Rabbit Town Café and the Avita Behavioral Health Facility.

▪ **Traffic Summary**

A Traffic Impact Study was conducted for the proposed development on April 13, 2021. A brief summary of the findings is provided below. The entire study is provided as part of the supporting documents.

Studied intersections:

1. Old Cornelia Highway and Dana Drive (unsignalized)
2. Old Cornelia Highway and White Sulphur Elementary (unsignalized)
3. Old Cornelia Highway and Oconee Circle (unsignalized)
4. Driveway #1 at Old Cornelia Highway
5. Driveway #2 at Old Cornelia Highway
6. Driveway #3 at Floyd Road

A background traffic growth rate of 1.5% was established for each year based on the population estimated growth rate. TIS anticipated three phases completed by the year 2035 which includes the proposed project and the adjacent planned “The Coop” Athletic Complex. The estimated trips through the year 2035 include 18,535 daily trips, 349 AM Peak Hour trips entering and 1,032 trips exiting, 1,138 PM Peak Hour trips entering and 683 trips exiting.

Based on the findings in this study, any improvements implemented at Driveway #1 on Old Cornelia Highway could not be implemented without adversely affecting the adjacent intersections. Therefore, three alternatives were evaluated that would also address the operation of White Sulphur Elementary School and Dana Drive. It is recommended that the roadway of Old Cornelia Highway be widened to four lanes to accommodate for these Alternatives. A long range project is currently planned for widening, but the background growth of the roadway coupled with the development volume exacerbate the need for the project. The developer should work with

GDOT for widening project, while the developer will be solely responsible for the selected Alternative. The intersection of Old Cornelia Road and Oconee Circle is currently experiencing unacceptable LOS before adding the project volumes, and improvements should be implemented by local officials. Alternative improvements were identified which accounted for the current Old Cornelia Highway conditions and a future proposed 4-lane widening.

- 1) The first alternative evaluated at the site driveway #1 (located between White Sulphur Elementary School and Dana Drive) is a minor street stop control with added dedicated left and right turn lanes into and out of the development. In both scenarios the northbound left exiting turn lane did not operate an acceptable capacity level.
- 2) The second alternative at site driveway #1 includes a traffic signal with the additional turn lanes. The existing two-lanes with a traffic signal did not perform at acceptable capacity levels during the PM peak hours for the west bound and north bound lanes. The multi-lane traffic signal showed the east, west and north bound turning movements operating at acceptable capacity levels.
- 3) The third alternative at site driveway #1 includes a single lane and a multi-lane roundabout. The multi-lane roundabout showed the east, west and north bound turning movements operating at acceptable capacity levels.
- 4) Other acceptable alternatives include allowing Dana Drive and White Sulphur Elementary School to access a signalized development Driveway #1 at a 4-lane Old Cornelia Highway. A dumbbell shaped roundabout consisting of two roundabouts close together at the development Driveway #1 and the White Sulphur Elementary School entrances with a consolidated driveway of Dana Drive and Driveway #1. An elliptical (elongated) roundabout expanding to each intersection with White Sulphur Elementary Driveway, Driveway #1 and Dana Drive.

#### ▪ **Georgia Mountains Regional Commission Summary**

The Georgia Mountains Regional Commission (GMRC) provided a regional review of DRI Project #3471 and has determined the proposed action does **NOT** present any potential adverse inter-jurisdictional impacts. However, the GMRC advises that a 3<sup>rd</sup> access point be made mandatory, and that a 4<sup>th</sup> should be explored if possible due to the size of the development. In addition, best environmental practices are encouraged regarding stormwater management given the property is located within the North Oconee Watershed Protection Zone.

#### ▪ **Other Departmental Comments**

The Georgia Department of Transportation states the I-985 (Exit 24) interchange has dual turn lanes for both the on and off ramps. Signal timing will need to be monitored on the SR 369 corridor as the area develops. No further coordination is required.

Coordination with the Gainesville Public Works Department will be required for the proposed development access plan. Solid waste will be provided for the single-family lots and possibly the townhomes depending on street access and the ability for trucks to turn around. Solid waste for the multi-family apartments, amenity areas and retail businesses will be handled privately.

The Gainesville City School System submitted an official letter in response to the request which is included with the documents. In summary, the School Board views the development as too massive, too dense and too populated for the school systems extended, planned growth plans. In addition, consideration should be given for the following:

- Confirming the location of a suitable 20+ acres school site;

- Developer-paid traffic signals at each proposed entrance for the safety of vehicles and/or buses transporting students;
- Bus pull-off aprons in each interior pod artery;
- Prohibited weekday parking in cul-de-sacs to ensure safe and smooth bus flow;
- Honoring, in a separate certified communique to the school system, the 20-acres site proposed for an elementary school; and
- Community information sessions in the Sherwood Heights, New Holland/Fair Street and Morningside Heights neighborhoods.

#### ▪ **Zoning History**

*The following zoning actions have taken place in the immediate area during the last ten years:*

**2020** - A request by the City of Gainesville to annex 4.4± acres and rezone 1,320± acres located at 0 and 2221 Smallwood Road; 2306 and 2312 Athens Highway; 1701 Fulenwider Road, SW with a zoning of Planned Unit Development (P-U-D) for a business park was approved with conditions.

**2019** - A request by Integrity Development Group, LLC to annex a 219.65± acres tract located at 2242 Gaines Mill Road; 2579 and 2581 Gillsville Highway with a zoning of Planned Unit Development (P-U-D) zoning for a 375 lot subdivision was approved with conditions.

**2018** - A request by Geosam Capital US (Atlanta), LP to amend an 85.45± acres portion of a 220± acres tract located at 0 Gaines Mill Road zoned Planned Unit Development (P-U-D) for 100-single-family homes was approved with conditions.

**2017** – A request by Keel Property Management, LLC to annex a 6.32± acres tract with a zoning of General Business (G-B) located at 0 White Sulphur Road was conditionally approved for restaurant, retail and a carwash.

**2017** – A request by the City of Gainesville to rezone 53.177± acres located at 1514, 1515, 1545, 1560 and 1581 Community Way from Residential-II (R-II) to Office and Institutional (O-I) zoning was approved for existing uses and for future professional office purposes.

**2016** – A request by Timothy Bullard to annex a 20.417± acres tract located at 1582 and 1586 Pine Valley Road was denied for a 240-unit apartment complex with Residential-II (R-II) zoning.

**2014** - A request by Alcovy-20, Inc. to amend a 26.10± acre tract located at 0, 2108 and 2125 Wilson Drive zoned Planned Unit Development (P-U-D) for a 55-lot single-family subdivision was approved with conditions.

**2012** - A request by Gainesville Truck Center to annex a 14.03± acres tract located at 2145 Athens Highway with a zoning of Light Industrial (L-I) for sewer for an existing truck center was approved.

**2012** – A request by Pacolet Milliken Enterprises, Inc. to annex a 68.223± acres tract located at 601 White Sulphur Road was approved with conditional Planned Unit Development (P-U-D) zoning for a mixed-use development.

#### ▪ **Staff Analysis**

**(1) Is the proposed use suitable in view of the zoning and development of adjacent and nearby property?**

Due to the size of the property, there are numerous adjacent uses and parcels that border the subject property. The surrounding land use is primarily agricultural and low density housing but

has never taken on an established land use pattern. The adjacent properties consist of a mixture of agriculture, residential, and office/commercial both in the city and county. Limited commercial and office uses are located along Old Cornelia Highway which has experienced very slow growth over the years. These properties are zoned Planned Unit Development (P-U-D), Agricultural Residential-III (AR-III), Agricultural Residential-IV (AR-IV), Residential-I-A (R-I-A), Residential-I (R-I) and Highway Business (H-B).

**(2) Will the proposed use adversely affect the existing use or usability of adjacent or nearby property?**

The proposed use will change the living conditions of the surrounding residential uses with an increase of traffic and demand on public services. Currently, the property is approved for 2,270 residential units, 24,000 square feet of commercial space and 548.5± acres of green space. The revised proposal includes the annexation of an additional 141.0± acres for 2,365 residential units, 75,000 square feet of commercial space and 645.3± acres of green space. The proposal anticipates the development will be built-out over a period of 10 years which will help integrate the residential growth.

**(3) Is the proposed use compatible with the purpose and intent of the Comprehensive Plan?**

The Future Development Map for the City of Gainesville places the property within the *Low-Medium Density Residential* land use category, which includes areas containing or planned for single-family detached or semi-detached housing at densities ranging from two to four dwelling units per acre. The proposal has a density of 2.11 dwelling units per acre for the 1,122 acres. The currently approved mixed-use use for the property has a density of 2.35 dwelling units per acre.

According to the Character Area map for the City of Gainesville, the subject property is located within the *Suburban Residential* Character Area which includes low-density residential, medium-density residential, multi-family residential, public / institutional, commercial, and parks / recreation / conservation and mixed-use. The goal of this character area is to preserve older, stable residential subdivisions and encourage newer projects with smaller lot sizes, pedestrian infrastructure, and buildings patterned after traditional local housing, possibly containing a small neighborhood-serving "village center". Mixed-use neighborhood design is desired but not required. In areas where natural features or sensitive environments are important, cluster housing or conservation subdivision design may be appropriate.

**(4) Are there substantial reasons why the property cannot or should not be used as currently zoned?**

The majority of the property is zoned Planned Unit Development (P-U-D). The applicant is proposing to amend the existing P-U-D and to annex an additional 141± acres with a zoning of P-U-D. The proposal includes a mixture of housing types and development standards which are currently not approved within the current P-U-D zoning or within the unincorporated county zoned portion of property. Therefore, the applicant is proposing to annex to utilize City water and sewer services.

The proposed zoning of Planned Unit Development (P-U-D) is considered a site-specific zoning intended to provide for some flexibility of land uses that should include unique and innovative development of the land through a unified site design in order to meet the objectives of the comprehensive plan.



**(5) Will the proposed use cause an excessive or burdensome use of public facilities or services, including but not limited to streets, schools, water or sewer utilities, and police or fire protection?**

Since the land is undeveloped, the proposal will increase the amount of traffic and turning movements generated from the site at the two proposed driveway locations. The estimated trips through the year 2035 include 18,535 daily trips, 349 AM Peak Hour trips entering and 1,032 trips exiting, 1,138 PM Peak Hour trips entering and 683 trips exiting. According to the traffic impact study, the widening of Old Cornelia Highway with dedicated turn lanes and a traffic signal or roundabout is necessary to keep traffic flow at an acceptable level for the project build out.

The applicant will be required to coordinate with Gainesville, Hall County and GDOT regarding any access and driveway improvements. According to the "9<sup>th</sup> Edition Trip Generation Manual" as published by the Institute of Transportation Engineers, the estimated trips for a proposed retail center are 266± two-way trips per weekday and 41 A.M. / 30 P.M. two-way peak hour trips.

Water and sewer capacity are available to serve the development. Existing public safety services currently respond to the adjacent and nearby properties. Gainesville Fire Station #2 located off of Cleveland Highway is located approximately 3.5 miles from the property. As well, Hall County Fire Station #7 off of East Crescent Drive is located approximately 1.5 miles away. The current approved use and the amended proposal reserves two acres within the development for a future public safety facility.

The proposal includes a total of 2,365 residential units which will impact the enrollment of the City School system. It is undetermined how many new school aged children will live within the development given the mixture of housing types. According to the School System, the development is too massive, too dense and too populated for the school systems extended, planned growth plans. The development will be phased over a period of 10 years which should help give school system additional time to plan for additional enrollment. In addition, the applicant proposes to donate twenty acres anywhere within the development except for phase 1 for a future school site, or the School Board may elect to receive an amount equal to the Developer's per acre purchase price for 20 acres paid in two installments.

**(6) Is the proposed use supported by new or changing conditions not anticipated by the Comprehensive Plan or reflected in the existing zoning on the property or surrounding properties?**

The subject property is supported by new and changing conditions in the surrounding area. While significant development has occurred west of Exit 24/ I-985 within the New Holland area, the growth patterns east of the interchange have changed slowly from rural to suburban which was anticipated by the Comprehensive Plan.

**(7) Does the proposed use reflect a reasonable balance between the promotion of the public health, safety, morality, or general welfare and the right to unrestricted use of property?**

The proposed annexation and P-U-D amendment request is an extension of the previously approved zoning plan which proposes a net increase of 141.0± acres of land, 96.8± acres of green space, 95 additional residential units and 51,000 square feet of commercial space. The proposal, with the recommended conditions, appears to promote a reasonable balance between the interests of the city, the property owner, and neighboring residents and property owners.

▪ **Staff Recommendation**

The Planning Division staff is recommending **conditional approval** of this annexation and P-U-D amendment request based on the Comprehensive Plan, the existing approved use for the property and the adjacent mixture of uses.

**Conditions**

1. The development standards within the applicant's narrative, site plans, and architectural renderings shall be made part of the zoning ordinance, and shall be subject to the Community and Economic Development Director approval. Any zoning conditions adopted as part of this zoning ordinance that conflict with the applicant's narrative, concept plan and architectural renderings shall take precedence over the applicant's development standards.
2. The maximum number of single-family detached homes/lots shall be 1,414. The maximum number of single-family attached homes shall be 311. The maximum number of multi-family units shall be 640. The total number of residential units shall not exceed 2,365 units.
3. No more than 300 single-family units (detached and/or attached) and 640 multi-family units shall be rental units for a total of 940 rental units. The multi-family units may be any combination of traditional garden-style apartments, townhomes, manor houses, cottages, and/or carriage houses built within the confines of the multi-family areas.
4. Prior to permits being issued for the residential uses, each contractor/developer shall provide architectural renderings of the proposed single-family detached homes, attached townhomes and multi-family apartments for the review and approval of the Community and Economic Development Department Director.
5. The minimum heated floor space for single-family detached homes shall be as presented in the below table associated with zoning condition number 8. The minimum heated floor space for the attached townhomes shall be 1,100 square feet and 640 square feet for the multi-family units. The single-family detached homes and attached townhomes shall not exceed 3 stories in height. The multi-family apartment buildings shall not exceed 3 stories, although 3 / 4 splits shall be allowed.
6. All exterior wall front, sides, and rear of the single-family detached homes, townhomes, and multi-family units shall consist of a variety of building materials consistent with architectural themes and styles determined by the applicant. Foundation water tables of matching brick or stone material, that also covers all exposed foundation walls, will be used where architecturally compatible. Vinyl siding shall only be permitted on soffit areas.

Other architectural requirements will include:

- Carriage style garage doors with decorative hardware or other embellishments shall be used on all single-family detached homes and townhomes;
- The roofing material used on all single-family detached homes and townhomes shall be 3-tab architectural/dimensional style asphalt shingles or metal as appropriate to the architectural style of each home as determined by the builder.
- All overhangs including gables and side gables will have a minimum of a 12-inch overhang on all sides;
- The developer shall use a variety of techniques to avoid the monotonous appearance of identical single-family detached homes. Such techniques may

employ among others the use of differing front elevations, architectural styles, building exteriors, and other similar techniques so that no single-family detached house is the same as any house directly in front of a single-family detached home or on either adjacent side of a single-family detached home;

- All roofs and gables shall be of a pitch no less than 8/12. This condition shall not apply to dormers, porches, bay windows, and third floor retreats;
- The exterior materials for all homes shall consist of brick, stone, fiber cement siding, cedar shake or wood siding;
- All roof vents, pipes, and other roof equipment (except chimneys) shall be located on the rear elevations and shall be painted to match the color of the roof;
- No above-ground swimming pools shall be permitted;
- No window air conditioning unit may be installed;
- No exterior blank, windowless walls will be constructed;
- If dormers are included, they will not be taller than the main roof;
- All single-family detached house plans will have front or side loaded garages;
- All townhomes will have front or rear entry garages;
- Street lighting will be provided throughout the development;
- All front porches of single-family detached homes shall have a minimum depth of 5';
- Windows are restricted to single hung or double hung windows.

These requirements shall be included in the Covenants to be recorded against the property.

7. Each detached single-family home and townhome shall have, at a minimum, an attached two car garage.
8. Specific development standards for the single-family detached homes shall include the following:

| Lot Width                           | *40'     | 50'      | 60'      | 75'      | 95'      |
|-------------------------------------|----------|----------|----------|----------|----------|
| Minimum Lot Size                    | 4,000 SF | 5,000 SF | 6,000 SF | 7,500 SF | 9,000 SF |
| Minimum Front Yard Setback          | 25'      | 25'      | 25'      | 25'      | 25'      |
| Minimum Side Yard Setback           | 5'       | 5'       | 5'       | 5'       | 5'       |
| Minimum Rear Yard Setback           | 10'      | 10'      | 10'      | 10'      | 10'      |
| Minimum Building Separation         | 10'      | 10'      | 10'      | 10'      | 10'      |
| Maximum Height (Number of Stories)  | 3        | 3        | 3        | 3        | 3        |
| Minimum Heated Square Feet per Home | 1,400 SF | 1,800 SF | 1,800 SF | 2,000 SF | 2,200 SF |
| **Maximum % of SF Detached Lot Type | 15%      | 35%      | 35%      | No Max   | No Max   |

\*40' lots are restricted to age-restricted neighborhoods only.

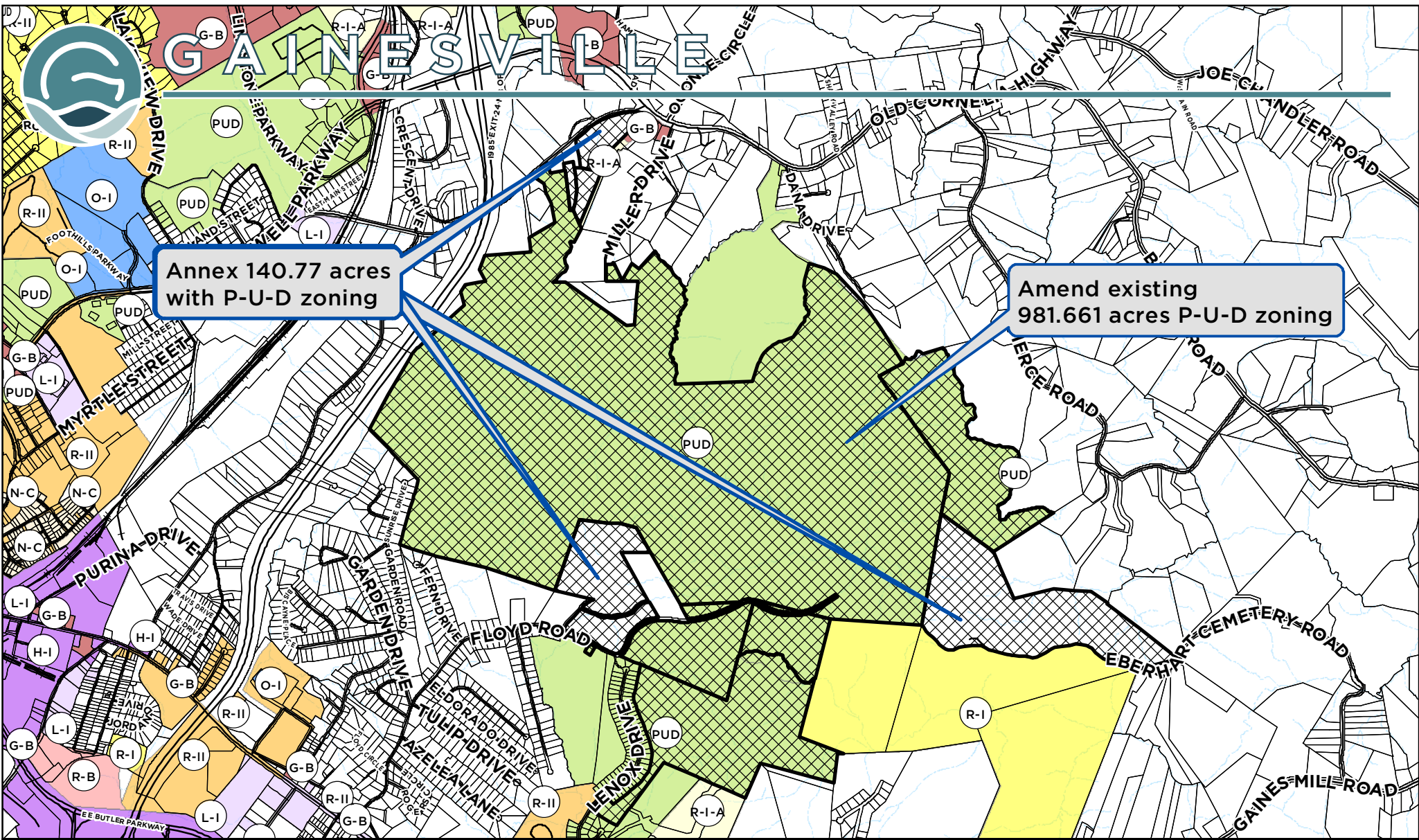
\*\*Any lot allocation from a smaller category may move to a larger category.

9. The front yard of each lot shall be sodded and planted with at least one 3" caliper in size hardwood tree.

10. The proposed amenities shall be required as shown on the site plan and the pictures shown on pages 10, 14, 15, 16, 17 28, 29, 34, 75, 76, 77, 87, 88 and 89 of the applicant's revised narrative submitted with this application per the approval of the Community and Economic Development Department Director. The amenity area must be started in the first phase of construction. No more than 250 single-family detached homes shall receive a certificate of occupancy (CO) prior to the Central Amenity Center being substantially completed as described on page 37 of the applicant's revised narrative. This shall include at minimum the clubhouse, swim center with lap pool with children's play area, tennis center with lighted courts, pickle ball courts, great lawn with pavilion for outdoor functions, and mail kiosk. Certain elements, such as additional courts may be phased in as demand dictates. Additional CO's may be granted at the discretion of the Community and Economic Development Director, if sufficient progress is being made on the amenity.
11. Covenants shall be put in place by the developer restricting against the parking of boats, trailers, and campers within driveways or streets. In addition, no on street parking shall be permitted for vehicles.
12. No more than 10% of the units within the proposed community storage facility may be leased to non-residents of the proposed development. There are no restrictions for non-resident use of any commercially operated storage facility that is located within the Commercial District.
13. A Uniform Sign Plan as identified within Section 9-18-7-4 of the Unified Land Development Code shall be required from the developer and is subject to approval by the Gainesville Community and Economic Development Director. All signs associated with residential uses shall be limited to indirect lighting. All signs shall be located outside of utility areas and shall not block visibility of vehicular traffic.
14. All proposed detention ponds shall be fenced and landscaped in order to mitigate the view from all roads and adjacent properties. All fencing and landscaping materials shall be approved by the Community and Economic Development Department Director.
15. A site shall be made available within the boundaries of the proposed development to the City of Gainesville for a school consisting of twenty (20) acres of land which meets the criteria established by the Georgia State School Board for such a public school. This site shall be made available by the developer without charge for the land, at any time within seven (7) years after the developer has provided paved access to the site. Alternatively, the School Board may elect to receive an amount equal to the Developer's per acre purchase price for 20 acres paid in two installments within 7 years of a land development permit being issued. The School Board shall identify a potential site no later than 180 days from closing, excluding any portions of the property that have been presented as Phase 1 of the community.
16. The developer agrees to make available an additional twenty (20) acres, for a total of forty (40) acres, if the City of Gainesville has a need for a second school site. The Gainesville School Board would be required to pay fair market value for this last twenty (20) acres. The School Board shall identify a potential site no later than 180 days from closing, excluding any portions of the property that have been presented as Phase 1 of the community.
17. A site shall be made available within the boundaries of the proposed development to the City of Gainesville for a fire station and a precinct for the police department

consisting of not more than two (2) acres of land which will be designated by the developer and reasonably approved by the Gainesville City Council for such public services. This site shall be made available by the developer without charge for the land, at any time within seven (7) years after the developer has provided paved access to the site. This site has been identified on the Concept Plan and the City of Gainesville shall have 180 days from closing to determine if the site meets their requirements or if another site is preferred, however any portions of the property that have been presented as Phase 1 of the community shall be excluded.

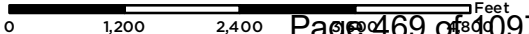
18. The plan shall include a fifty (50') foot perimeter buffer separating all portions of the development from the existing single-family communities to the south of the project site. The specific parcels are shown on the buffer exhibit attached. The composition of this buffer, including any fencing deemed necessary, shall be subject to final approval by the Community and Economic Development Department Director.
19. Minimum five foot (5') wide sidewalks with a two foot (2') grass beauty strip shall be required as shown on the Pedestrian Access Plan filed with this request. Applicant, at his sole discretion, shall substitute a five foot (5') sidewalk with a ten foot (10') multi-use trail (asphalt or concrete) where indicated on the Pedestrian Access Plan to be maintained by the Homeowners Association (HOA).
20. All new streets shall meet the standards within the current Gainesville Unified Land Development Code, unless varied herein. All proposed residential uses, commercial uses and amenities shall provide for pedestrian connectivity throughout the development. All costs associated with the improvements shall be at the full expense of the developer.
21. All access point design for the subject property shall be submitted for review and approval by the Gainesville Public Works Director, Hall County and/or the Georgia Department of Transportation. The main access road, from Old Cornelia Highway to Applicant's property shall be constructed by the City of Gainesville at its expense. Applicant shall be responsible for access beyond this point and any other access points to the property.



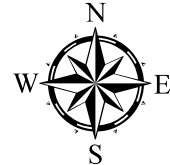
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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Applicant: <b>CABALLERO HOLDINGS, LLC</b>                                                                                                                       |  | Request:<br>Annex 140.77+/- acres tract and establish zoning as Planned Unit Development (P-U-D); and Amend existing Planned Unit Development (P-U-D) zoning on a 981.661+/- acres tract for a master planned mixed-use development |  |
| <b>ANNEXATION &amp; ZONING AMENDMENT REQUEST</b>                                                                                                                |  |                                                                                                                                                                                                                                     |  |
| Subject Property Address:<br>0, 2166, 2170 & 2210 Old Cornelia Hwy, SE;<br>0, 2465, 2490 & 2544 Floyd Road, SE;<br>0 Lenox Drive, SE; & 0 Eberhart Cemetery Rd. |  | Tax Parcel:<br>15-021-000-164; 15-022-000-001B, 003 (Part), 003M, 004, 034 & 086;<br>15-033-000-001; 15-033B-000-022, 024 & 026A                                                                                                    |  |
| Meeting Date: 12/14/2021                                                                                                                                        |  | Map Prepared: 11/10/2021                                                                                                                                                                                                            |  |
|                                                                                                                                                                 |  | Page 469 of 1097                                                                                                                                                                                                                    |  |



Subject Property



SCALE: 1" = 2,000'







# GAINESVILLE

Annex 140.77 acres  
with P-U-D zoning

Amend existing  
981.661 acres P-U-D zoning

Applicant: **CABALLERO HOLDINGS, LLC**

## ANNEXATION & ZONING AMENDMENT REQUEST

Subject Property Address:  
0, 2166, 2170 & 2210 Old Cornelia Hwy, SE;  
0, 2465, 2490 & 2544 Floyd Road, SE;  
0 Lenox Drive, SE; & 0 Eberhart Cemetery Rd.

Tax Parcel:  
15-021-000-164; 15-022-000-001B,  
003 (Part), 003M, 004, 034 & 086;  
15-033-000-001; 15-033B-000-022,  
024 & 026A

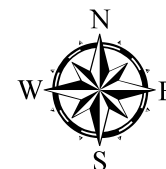
### Request:

Annex 140.77+/- acres tract and establish zoning as Planned Unit Development (P-U-D); and Amend existing Planned Unit Development (P-U-D) zoning on a 981.661+/- acres tract for a master planned mixed-use development



Subject Property

Aerial from 2018



Meeting Date: 12/14/2021

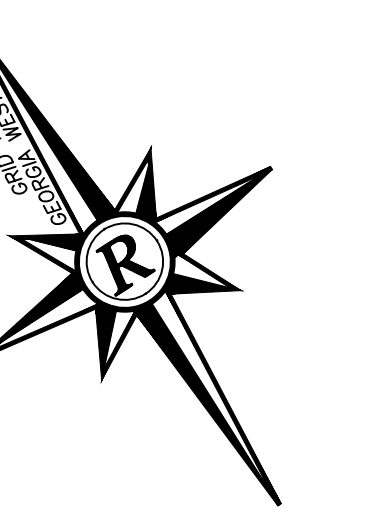
Map Prepared: 11/10/2021

0 1,200 2,400 Feet

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SCALE: 1" = 2,000'





# Annexation Parcels

15033B 000024

15033B 000022

15033B 000026A

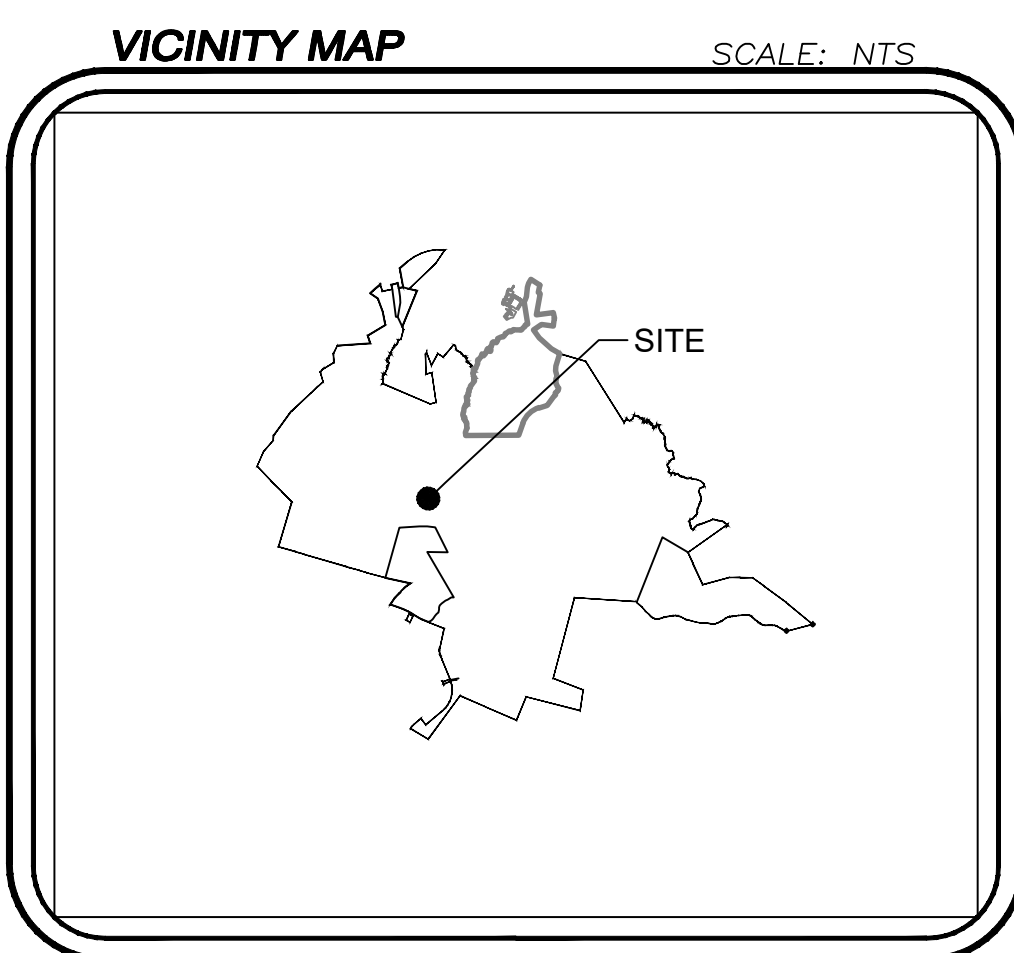
15022 00001B

15022 000003

| UNIT SUMMARY                 |            |
|------------------------------|------------|
| ACREAGE                      | 1122       |
| SINGLE FAMILY DETACHED UNITS | 1414       |
| SINGLE FAMILY ATTACHED UNITS | 311        |
| MULTI-FAMILY UNITS           | 640        |
| TOTAL RESIDENTIAL            | 2365       |
| OVERALL DENSITY              | 2.10       |
| OPEN SPACE                   | 645± ACRES |
| COMMERCIAL                   | 75000 SF   |

**OWNER INFORMATION:**  
**CABALLERO HOLDINGS, LLC**  
**3840 WINDERMERE PARKWAY, SUITE 402**  
**CUMMING, GA 30041**

NOTE:  
1. THE BOUNDARY AND EXISTING PARCEL LINES SHOWN WERE TAKEN FROM HALL COUNTY GIS & SURVEY PREPARED BY ROCHESTER & ASSOCIATES, INC.  
2. EXISTING TOPOGRAPHY AND UTILITIES TAKEN FROM HALL COUNTY GIS & SURVEY PREPARED BY ROCHESTER & ASSOCIATES, INC.  
3. THE EXISTING CREEKS AND BUFFERS TAKEN FROM HALL COUNTY GIS, NOT FIELD VERIFIED.  
4. PORTIONS OF THIS PROPERTY ARE LOCATED IN A FLOOD HAZARD ZONE "A" AS PER FEMA FLOOD INSURANCE RATE MAP OF HALL COUNTY, GEORGIA, COMMUNITY PANEL NO. 13139C0195G, DATED APRIL 4, 2016.



**CABALLERO HOLDINGS, LLC**

CITY OF GAINESVILLE  
HALL COUNTY, GEORGIA

**ZONING PLAN - GAINESVILLE TOWNSHIP**

DATE: 9/22/2021  
JOB NO. G216038 CAB  
FILE NO. 4 CONCEPT  
DRAWN BY: CMM





# A PLANNED UNIT DEVELOPMENT

*Gainesville, Georgia  
September 24, 2021*



# GAINESVILLE TOWNSHIP



Caballero Holdings, LLC  
3840 Windermere Parkway  
Cumming, Georgia 30041

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# PROJECT OVERVIEW

## OF GAINESVILLE TOWNSHIP



Gainesville Township is a master planned community consisting of approximately 2365 homes on approximately 1122 acres. Development is planned to be primarily confined to the ridgelines in order to promote a greater balance with nature. 645± acres will remain as open space. The project's overall density is approximately 2.11 units per acre. The project is less dense than most other developments served by public sewer and will contain a variety of different housing types and sizes, which will be separated into various sub-communities or pods. This variety of housing types is intended to encompass different price points and accommodate residents of varying ages, from young professionals to families to active seniors. The community's focal point will be the Gainesville Township Central Amenity, passive parks throughout and extensive trail system, which are all designed to create a unique identity and character for the development.

Large areas of open space containing mature trees are integrated into the master plan to preserve the property's natural beauty. A significant number of homes within each pod will adjoin these open spaces thereby allowing residents to use and enjoy the open space areas. Over 80,000 feet of jurisdictional streams bisect the property, creating natural buffers and preservation areas.

In essence, Gainesville Township connotes a sense of community at a special place in the foothills of the Northeast Georgia Mountains — a place many would like to call home.

GAINESVILLE TOWNSHIP  
CONNOTES A SENSE OF COMMUNITY  
AT A SPECIAL PLACE  
IN THE FOOTHILLS OF THE  
NORTHEAST GEORGIA MOUNTAINS

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# DEVELOPER'S STORY

OF GAINESVILLE TOWNSHIP



Cotter Properties and Development, LLC ("CPD"), parent company of Caballero Holdings, LLC was established by Douglas W. Cotter, Jr. in 2004 and is one of the preeminent residential real estate development firms in the southeast.

Mr. Cotter and his partners have extensive development experience and participated in the development of over 8,000 residential lots prior to 2014. Since 2014 CPD has rezoned, entitled or developed in excess of 8,000 residential lots and is currently working to rezone, entitle and develop over 12,000 additional residential lots in four states.

CPD has served as the sole or primary developer on over 40 projects since 2014 and more than 60 projects prior to 2014.

Through its relationships with local real estate brokers and the nation's largest home builders, CPD is able to source projects others miss and close on projects others simply cannot disentangle and consummate.

CPD is well positioned for the future and to take advantage of current market opportunities, which include serving as a preferred development partner for multiple national builders and local development sponsors.

CPD's current principals are Douglas W. Cotter, Jr. and George E. Harvey III. Mr. Cotter is a past president of The Greater Atlanta Home Builders Association and has been active in the real estate development and home building arenas since 1991. Mr. Harvey is an attorney that left the full-time practice of law in 2006 in order to pursue a career as a real estate developer.

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COTTER PROPERTIES AND DEVELOPMENT, LLC  
WAS ESTABLISHED IN 2004



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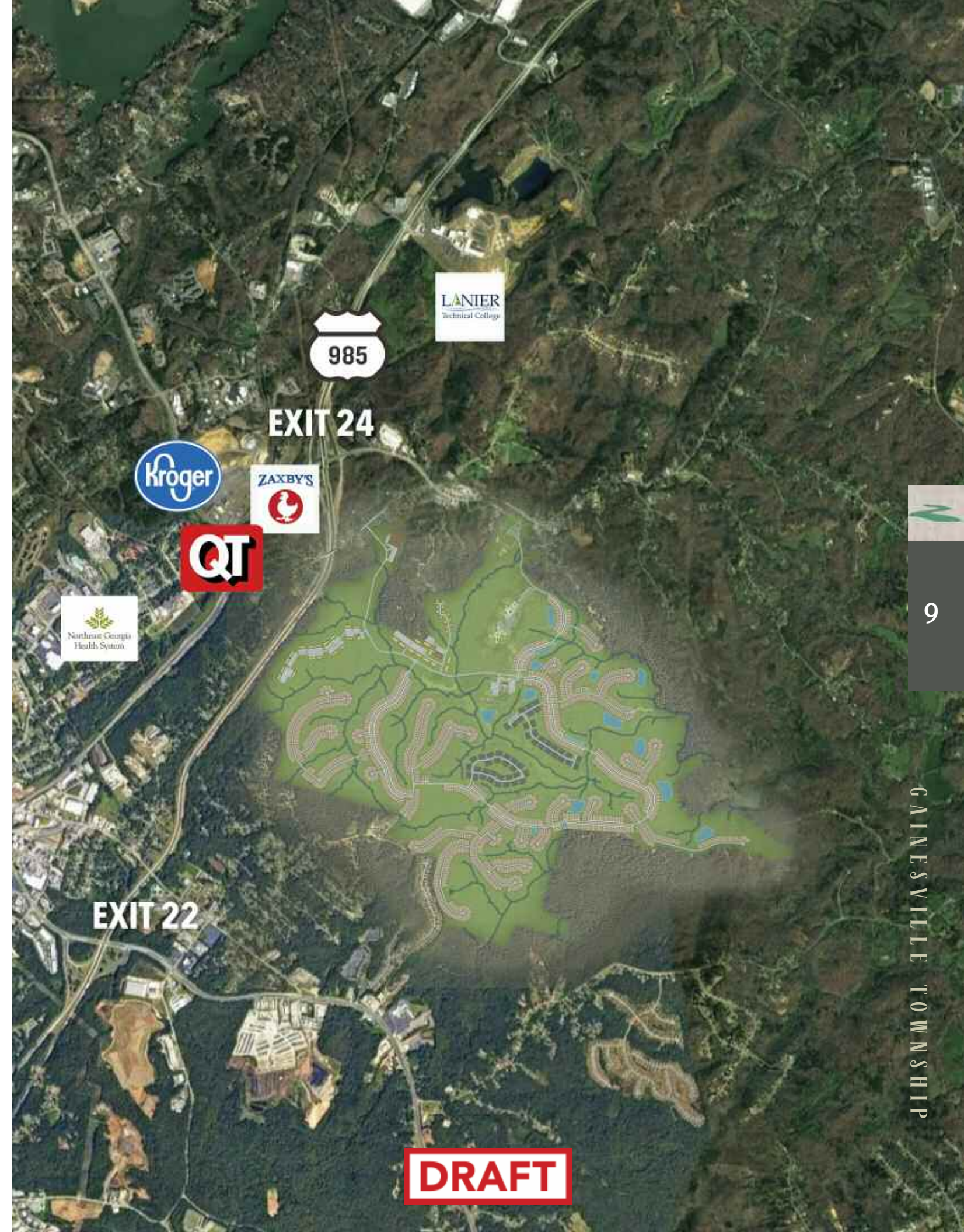


# LOCATION OF GAINESVILLE TOWNSHIP

The future Gainesville Township community is located less than 3 miles north-east of the City of Gainesville square and less than 1 mile east of I-985 at Exit 24. Primary access to the property will be from Old Cornelia Highway near the current location of White Sulphur Elementary School. The property is surrounded primarily by developed residential uses.

Gainesville Township will straddle and protect the floodplain of Pond Fork, a tributary to the Middle Oconee River. Several unnamed streams exist on the property and will be preserved along with the majority of their associated mature tree canopy. Limited areas of the property were previously timbered, creating pastures in the lower lying areas. The property is surrounded by a variety of residential uses which have been developed over the past 50 years. Approximately 1400 lf of the property fronts to I-985 just south of Exit 24. A major retail area, anchored by a Mega Kroger is developing on the west side of I-985 along with restaurants and other commercial uses. North Georgia Health System's main campus is located approximately 2.2 miles away on Jesse Jewell Parkway. The new campus of Lanier Technical Institute is located less than 2 miles north on I-985.

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# CHARACTER

## OF GAINESVILLE TOWNSHIP



The Gainesville Township community has been carefully planned to minimize environmental impacts and maximize internal connectivity based on streams, wetlands, steep slopes and other natural features. Development will be concentrated primarily along ridge lines with the majority of land adjacent to streams left untouched. The general theme is planned to promote a sense of community and interconnectivity while still providing smaller pods of development that may have their own individual identities.

Gainesville Township is planned to contain a variety of housing types, including age-targeted single-family houses and town houses for active adults and traditional single-family neighborhoods with a range of lot widths and home sizes as well as multi-family options.

A key feature of Gainesville Township will be its multi-use system of walking paths that will connect all areas of the community to the Central Amenity. The community design will foster connectivity for the residents to one another, nature and the amenities. Additional planned amenities include a spacious clubhouse for gatherings, lap pool with separate children's area, pickle ball courts, disc golf and lighted tennis courts suitable for ALTA/USTA competition. Small pocket parks, intimate landscaped spaces and winding sidewalks will further promote the cohesiveness of the community.

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GAINESVILLE TOWNSHIP  
HAS BEEN PLANNED  
TO PROMOTE A SENSE OF  
COMMUNITY AND  
INTERCONNECTIVITY.

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# STREET SYSTEM

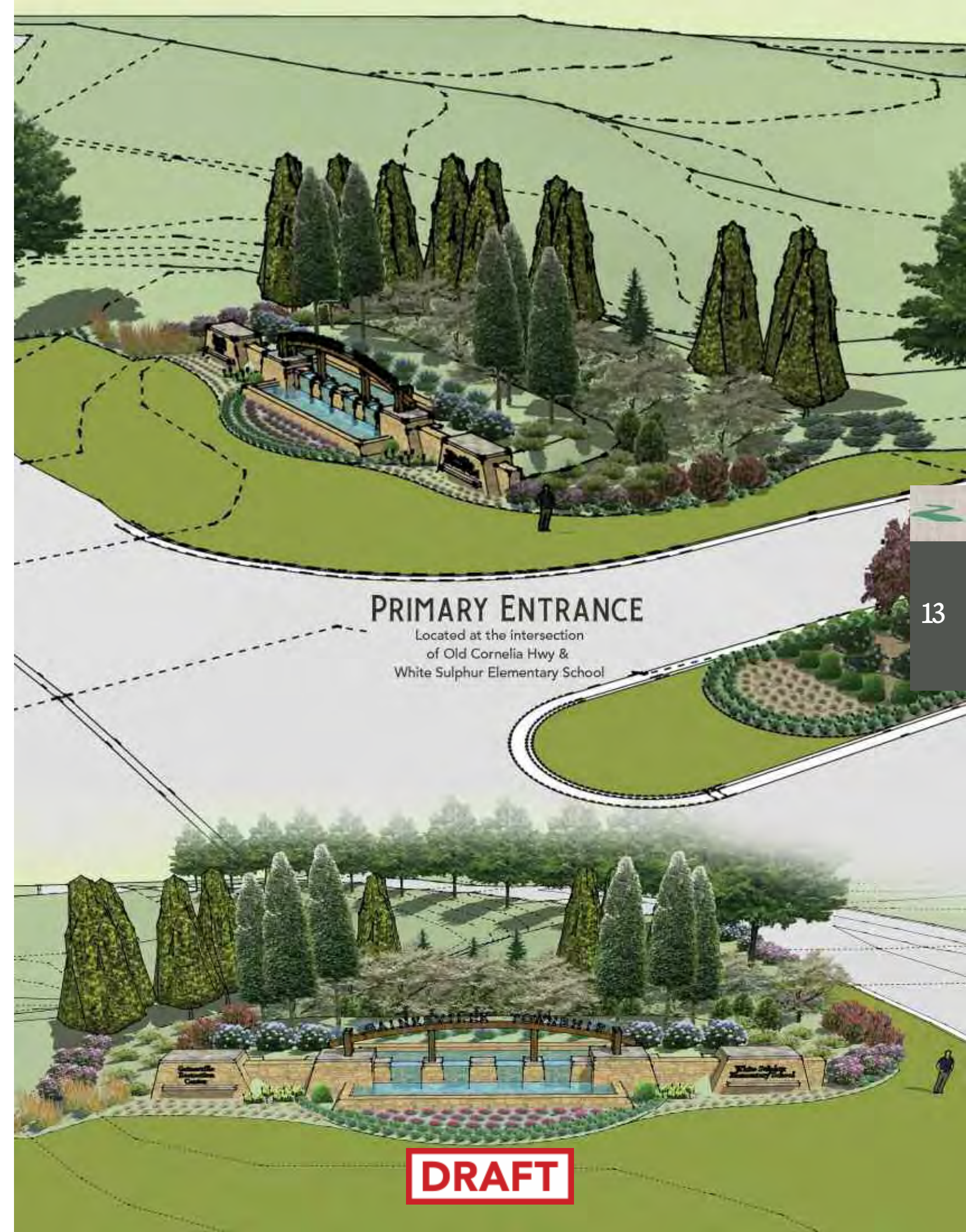
## OF GAINESVILLE TOWNSHIP



The primary entrance to Gainesville Township will be at the current intersection of Old Cornelia Highway and White Sulphur Elementary School. Additionally, a second entrance is planned on Old Cornelia Highway to the west of the primary entrance. A future third entrance may be added to the south of the property with access to Athens Highway (US 129). All streets are planned to become publicly maintained at the expiration of the required maintenance periods. All streets will be constructed to City of Gainesville standards and will include sidewalks, multi-use paths, street lights and cross walks where indicated. Multi-Use paths may be constructed of concrete or asphalt.

Streets that are located internal to single family attached and multi-family portions of the project may be gated and remain private as determined by the Developer.

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# OPEN SPACE

## OF GAINESVILLE TOWNSHIP



At 645± acres, the open space that meanders throughout the development will be directly accessible to each residential pod. The open space will include areas for amenities, walking paths and passive or active recreation. However, the majority of the open space will be left undisturbed to protect the natural beauty of the site as well as environmentally sensitive areas. The development team believes this element adds tremendous value to the overall development.

Gainesville Township is being developed with nature and outdoor experiences in mind, including numerous parks, open spaces and an extensive network of walking paths as well as natural water amenities. Pocket parks will be located throughout the community and will be connected through the network of walking paths. One pocket park may include benches and an arboretum while another may have a swing set and yet another may simply have a community lawn or nature observation deck. These areas will serve as the focal points for different areas of the community. This element of the community will become a social gathering place and will serve as host to diverse community activities.

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**645± ACRES OF OPEN SPACE**

Including numerous parks, open spaces, walking paths and natural water amenities.

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# AMENITIES

## OF GAINESVILLE TOWNSHIP



Primary amenities are planned in the central portion of the property with additional amenities planned throughout the project.

### The Central Amenity Center will include:

**Clubhouse**

**Swim Center** with a lap pool with children's play area

**Tennis Center** with lighted courts suitable for ALTA/USTA competition

**Pickle Ball courts**

**Great Lawn** with pavilion for outdoor functions

**Mail Kiosk**

**Disc Golf**

**Pocket Parks**

**Dog Park**

**Extensive Trail, Sidewalk and Multi-Use Path System**

The Central Amenity building, parking and street elements are designed to be pedestrian-friendly with vehicular traffic programmed for slower speeds around the proposed roundabout. Bicycle racks are planned to promote non-vehicular trips to the Center. Satellite amenities of a smaller scale may be offered at other areas based on future needs and market demand. These amenities could range from small open space areas to cabanas with neighborhood sized pools. A boat/RV storage area may also be included for the neighborhood

The extensive trail and sidewalk and multi-use path system, along with the other amenity features, will promote social interaction between residents of the Gainesville Township community and promote a healthy lifestyle for its residents.

The individual elements of these amenities may be phased in relation to future needs and market demand.

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### THE CENTRAL AMENITY CENTER

Featuring clubhouse, swim center, lighted tennis center, pickle ball courts, and great lawn with pavilion.



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# RESIDENTIAL PRODUCTS

OF GAINESVILLE TOWNSHIP



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GAINESVILLE TOWNSHIP

SINGLE  
FAMILY  
DETACHED

The community's development plan has created a balance of residential product choices that will accommodate multiple lifestyle desires. Particular emphasis has been placed on preserving as many areas of natural beauty and tree cover as possible, thereby creating natural separation of neighborhoods and promoting access to parks and open spaces.

Traditional single-family lots are proposed for the majority of Gainesville Township. A variety of lot width sizes and product sizes will be located throughout the project. Similar sizes will be "clustered" together and may be completed by multiple builder groups. While the majority of these products will be owner occupied, nothing in this document shall prohibit their use as for rent products, at the requested limit.

| SF Detached                       | 40'   | 50'   | 60'   | 75'    | 95'    |
|-----------------------------------|-------|-------|-------|--------|--------|
| Lot Width                         | 40'   | 50'   | 60'   | 75'    | 95'    |
| Minimum lot size                  | 4,000 | 5,000 | 6,000 | 7,500  | 9,000  |
| Minimum Front Setback             | 25'   | 25'   | 25'   | 25'    | 25'    |
| Minimum Side Setback              | 5'    | 5'    | 5'    | 5'     | 5'     |
| Minimum Rear Setback              | 10'   | 10'   | 10'   | 10'    | 10'    |
| Exterior Buffer                   | 25'   | 25'   | 25'   | 25'    | 25'    |
| Minimum Building Separation       | 10'   | 10'   | 10'   | 10'    | 10'    |
| Maximum % of SF Detached Lot Type | 15%   | 35%   | 35%   | No Max | No Max |
| Minimum Heated SF per Home        | 1,400 | 1,800 | 1,800 | 2,000  | 2,200  |

Lot standards and the allowable maximum percentages of each lot size is indicated below. The combined number of 40's & 50's shall not exceed 50% of the total.



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GAINESVILLE TOWNSHIP

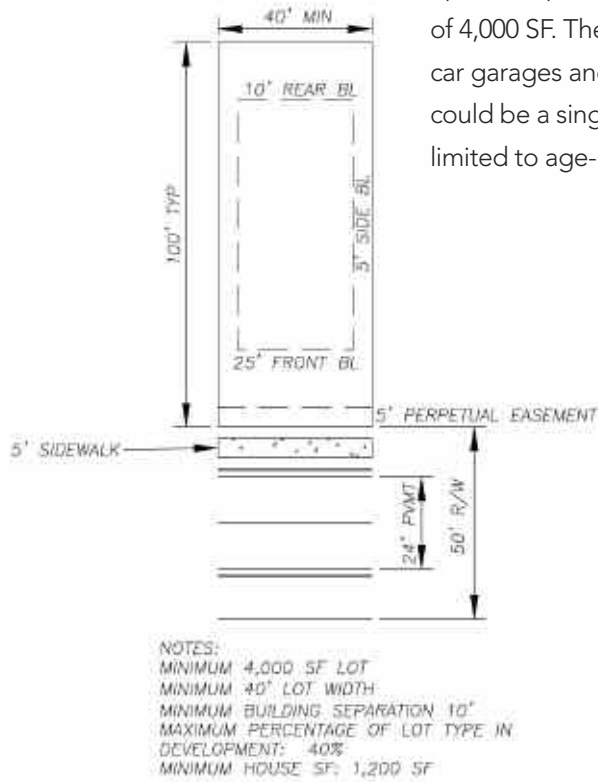
GAINESVILLE TOWNSHIP





# 40' SINGLE FAMILY DETACHED LOTS

The Community's development plan has been created to provide a balance of residential product choices that will accommodate multiple lifestyle options. Up to 15% of the lots could be 40' wide lots with a minimum lots size of 4,000 SF. These lots will support a product width up to 30' wide with two car garages and a minimum heated floor area of 1,400 SF. The product type could be a single story ranch or a 1 ½ to 2 story product. The 40' lots shall be limited to age-restricted neighborhoods only.

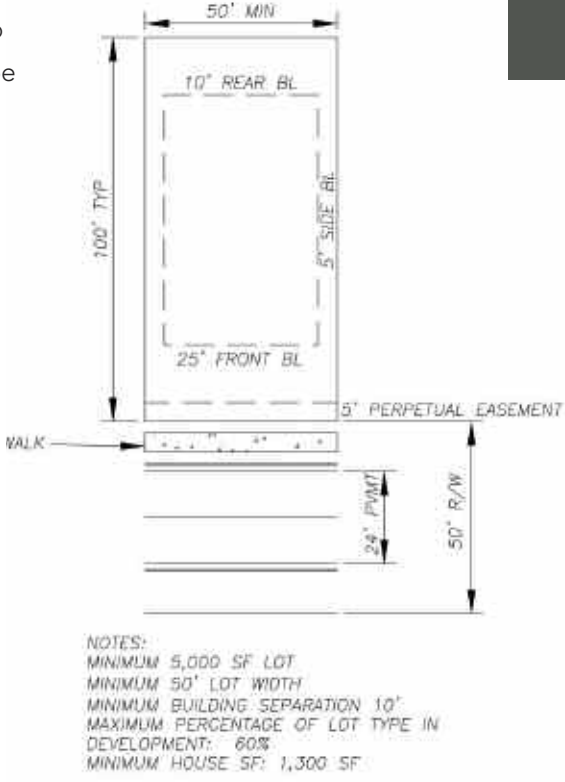


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# 50' SINGLE FAMILY DETACHED LOTS

The Community's development plan has been created to provide a balance of residential product choices that will accommodate multiple lifestyle options. Up to 35% of the lots could be 50' wide lots with a minimum lots size of 5,000 SF. These lots will support a product width up to 40' wide with two car garages and a minimum heated floor area of 1,800 SF. The product type could be a single story ranch or a 1 ½ to 2 story product. The combined number of 40' lots and 50' lots shall not exceed 50% of the total lot count.



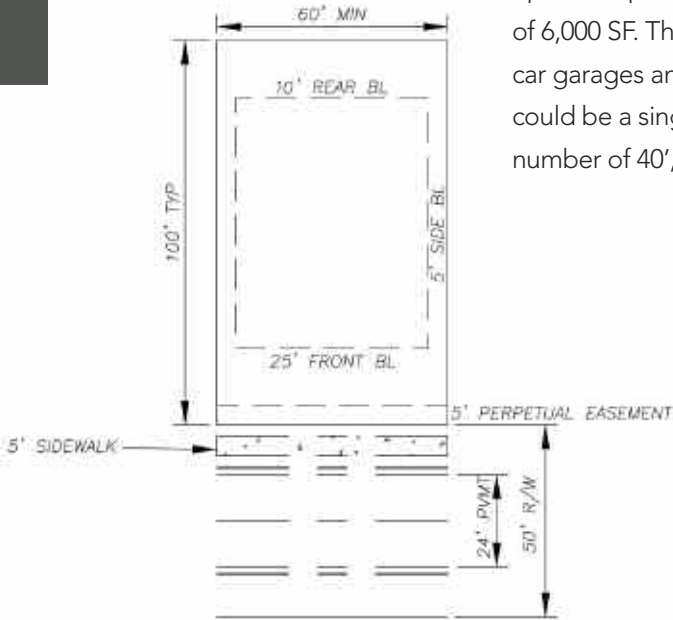
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# 60' SINGLE FAMILY DETACHED LOTS

The Community's development plan has been created to provide a balance of residential product choices that will accommodate multiple lifestyle options. Up to 35% of the lots could be 60' wide lots with a minimum lots size of 6,000 SF. These lots will support a product width up to 50' wide with two car garages and a minimum heated floor area of 1,800 SF. The product type could be a single story ranch or a 1 ½ to 2 story product. The combined number of 40', 50' & 60' lots shall not exceed 85% of the total lot count.



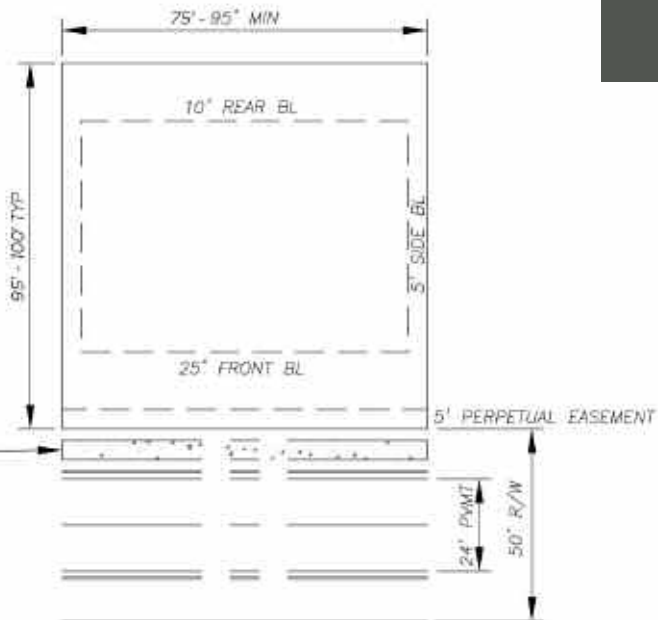
NOTES:  
MINIMUM 6,000 SF LOT  
MINIMUM 60' LOT WIDTH  
MINIMUM BUILDING SEPARATION 10'  
MAXIMUM PERCENTAGE OF LOT TYPE IN DEVELOPMENT: 80%  
MINIMUM HOUSE SF: 1,500 SF



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# 75' & 95' SINGLE FAMILY DETACHED LOTS

The Community's development plan has been created to provide a balance of residential product choices that will accommodate multiple lifestyle options. There is no proposed maximum number of lots for 75' & 95' wide lots with a minimum lots size of 7,500 to 9,000 SF. These lots will support a product width 65' to 85' wide with front or side entry garages and a minimum heated floor area of 2,000 SF. The product type could be a single story ranch or a 1 ½ to 2 story product.



NOTES:  
MINIMUM 7,500 - 9,000 SF LOT  
MINIMUM 75' - 95' LOT WIDTH  
MINIMUM BUILDING SEPARATION 10'  
MAXIMUM PERCENTAGE OF LOT TYPE IN DEVELOPMENT: NO MAX  
MINIMUM HOUSE SF: 2,000-2,200 SF



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GAINESVILLE TOWNSHIP

# SINGLE FAMILY ATTACHED

Single Family Attached product will be located strategically within the project, providing an alternative lifestyle and pricing option. This product may consist of both multi-level townhome style homes and single-level quadraplex homes. While some of the products will be targeted toward families, others may be age-targeted to a 55+ buyer. All single family attached homes will be offered as low or no maintenance alternatives to detached home ownership. While the majority of these products will be owner occupied, nothing in this document shall prohibit their use as “for rent” products.

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Lot standards and the allowable maximum percentages of each lot size is indicated below:

| SF Attached            | Townhomes | Townhomes |
|------------------------|-----------|-----------|
| Lot Width              | 20        | 24        |
| Minimum lot size       | 2,000     | 2,000     |
| Front Setback          | 15        | 20        |
| Side Setback           | 0         | 0         |
| Rear Setback           | 0         | 0         |
| Exterior Buffer        | 25        | 25        |
| Building Separation    | 20        | 20        |
| Minimum Square Footage | 1,100     | 1,400     |
| Maximum %              | No Max*   | No Max*   |

*\*TOTAL NUMBER OF SF DETACHED UNITS SHALL NOT EXCEED 311.*



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GAINESVILLE TOWNSHIP

# MULTI-FAMILY

Multi-Family product is planned for a minimum of two locations within the project. Product offerings may include both family oriented as well as adult focused options. The product will be low rise (two/three or three/four story) garden style or breezeway style buildings, attached manor homes or detached cottages.

The Multi-Family areas of the project will provide their own amenities, geared specifically to their target markets. Amenities typically include; clubhouse, pool, fitness equipment and outdoor amenities such as fire pits and park areas.

**THE TOTAL NUMBER OF MULTI-FAMILY UNITS  
WILL BE CAPPED AT 640.**



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Multi-Family standards are indicated below:

| Multi-Family        | Garden Style | Breezeway Style | Manor | Cottages |
|---------------------|--------------|-----------------|-------|----------|
| Front SB            | 30'          | 30'             | 10'   | 10'      |
| Side SB             | 10'          | 10'             | 10'   | 5'       |
| Rear SB             | 20'          | 20'             | 10'   | 10'      |
| Building Separation | 20'          | 20'             | 20'   | 10'      |
| Maximum Stories     | 4            | 4               | 3     | 2        |
| Maximum Height      | 60'          | 60'             | 45'   | 35'      |



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# COMMERCIAL DEVELOPMENT

## OF GAINESVILLE TOWNSHIP



Commercial development may occur in areas with external road access, primarily along Old Cornelia Highway. Allowable uses shall be those specific to the Neighborhood Business District (N-B), drive thru restaurants and those specified under the "Institutionalized residential living and care facilities, serving more than eighteen (18) persons" use. Individual buildings shall not exceed three (3) stories in height with a gross square footage not to exceed 75,000 square feet. Parking ratios shall be in accordance with City of Gainesville ordinances based on the final use of the property.



# SITE DEVELOPMENT OF GAINESVILLE TOWNSHIP



## Monumentation & Signage

The gateway to Gainesville Township is located at the intersection of Old Cornelia Highway and the City's new entrance to the Gainesville Youth Sports Complex. This intersection will serve the Youth Sports Complex, White Sulphur Elementary School and Gainesville Township. This entrance will act as the main visual link to the project and announces the development. As such, a critical part of Gainesville Township's initial impression, the project gateway will include landscape and hardscape features, signage, monumentation, and lighting establishing a sense of place and arrival point. The major gateway will define Gainesville Township, reflecting the architectural and landscape style of the development. Signage will contain additional identification of the Gainesville Youth Sports Complex and the White Sulphur Elementary School.

Billboard placement, including electronic billboards, on the property shall be allowed and limited to frontage along I-985. These billboards shall not exceed 440 square feet and 45 feet in height. All billboards are limited to project related content and must be removed within seven years of erection or 95% of project build-out, whichever occurs last. There shall be a limit of two such billboards.

## Secondary Identification

Additional signage and monumentation elements may be placed throughout the development and should be similar in style to the major project identification but will be smaller in scale. These may be placed at the secondary access points on Old Cornelia Highway or on interior streets of Gainesville Township. Minor information signs may also be used to guide visitors to various neighborhoods, amenities, and points of interest within Gainesville Township. The information signs might include event listings and other pertinent information relevant to the community.



## Landscaping

Together with the infrastructure design, the proper planning and design of outdoor spaces is critical in fostering the desired atmosphere of Gainesville Township. The overall landscape concept for this area plays a crucial role in unifying Gainesville Township and is intended to ensure that residences and related improvements are in concert with scenic beauty and natural conditions. The development will respect the area's natural setting and include new plantings that harmonize with the existing environment and the landscape character of the region. A consistent landscape that responds to aesthetic concerns and helps establish a positive image within the development for years to come must be established.



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# COMMUNITY STANDARDS

## OF GAINESVILLE TOWNSHIP



### Maintenance & Ownership of Streets and Open Spaces

All of the streets, including those within individual pods or phases, are intended to be built to the typical sections shown herein and otherwise to the standards of the City of Gainesville. Other than the Parkway, roads may be gated for limited access and privately maintained. Roads not gated or otherwise access-limited will be dedicated to the City of Gainesville for maintenance. All interior open spaces and common elements will be deeded to the Master Home Owner's Association for maintenance and operation.

### Water & Sewer Utilities

The City of Gainesville will provide water and sewer service to Gainesville Township. The availability of services has been verified with the City of Gainesville.

### Homeowners Association

A mandatory Home Owner's Association (HOA) will be formed for Gainesville Township. The HOA will maintain and manage all of the common areas of the development, including financial management, architectural controls, and enforcement of community standards. The Multi-Family areas will be separate from the overall HOA but they will contribute to certain common element maintenance. The Restrictive Covenants will limit the number of single family detached rentals to 300 units and limit the number of single family attached rentals to no more than 75% of the units constructed at any given time. Any modifications or new construction within the community must be approved by an Architectural Review Board. The Board will be established and operated by the Developer until such time as the powers are transferred to the HOA(s).

### Model Homes & Prairie Homes

Prior to approval of any phased Final Plat, the City of Gainesville will issue a maximum of 50 model home permits and 50 prairie home permits. Once final platting has been approved for the outstanding prairie home permits, the City of Gainesville will issue additional prairie home permits, not to exceed 50 at any given time. This time period allows the Developer to accelerate their production schedule and reduce the time frame necessary to complete a house and close a sale. In a development of this magnitude, the City of Gainesville recognizes the carrying cost of land acquisition, infrastructure and overhead requires an expedited delivery schedule to meet project objectives and insure the ongoing success and vitality of the project.

Model home and prairie home permits will not be issued until access to the lot is provided in the form of a hard surface (crusher run) and fire protection is established within 500 feet of the lot in the form of a 1500-gallon tank fitted to City of Gainesville Fire Department specifications. The applicant/property owner agrees to indemnify the City of Gainesville against any claim of loss that may result from the early issuance of these type of permits.

**Model Home and Prairie Home shall be defined as follows:**

**PRAIRIE HOME** – *A concept used by Developers to allow for home construction starts (building permit issuance) prior to Final Plat recording. Prairie Home permits will not be granted temporary certificates of occupancy or permanent certificates of occupancy until approval of the final plat for the phase of development in which they are located.*

**MODEL HOME** – *A concept used by Developers to allow for home construction starts in order to model building types, floor plans, interior finishes, etc. to potential buyers. Model home permits will be granted a temporary certificate of occupancy (provided adequate restroom facilities have been completed) prior to final plat that will restrict the use of the structure to a sales center and furniture staging. Habitation will not be allowed in model homes until a permanent certificate of occupancy has been issued. Permanent certificate of occupancy will not be issued until approval of the final plat for the phase of development in which they are located.*



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Drainage & Stormwater Management

All of Gainesville Township lies within the Pond Fork drainage basin and flows to the Middle Oconee River. Highest elevations are on the north and east and sides of the property, with flows generally to the east side of the property. Master detention facilities, serving multiple phases of development, are planned at suitable locations to reduce the number of detention ponds otherwise required.

Uses

Land development for residential housing is dynamic because of the need to concurrently predict and respond to the local real estate market and national economic and demographic trends.

Approval of the Gainesville Township Master Plan is intended to approve approximately 2365 units as the maximum number of units for the development. Housing product types may be rearranged, combined or reconfigured without limit within the development, provided the total number of units nor the maximum number of lot sizes are not exceeded and that the overall change will not substantially increase impact to the public school system, roadways at peak hours or points of connection.

Uses of a traditional single family residential nature are primarily for owner occupancy but, up to 300 units Single Family Detached and Single Family Attached may be used for rental purposes. Multi-Family uses are intended to be 100% for rental purposes. If market conditions warrant, up to 5% of the acreage of Gainesville Township may be used instead for senior resident adult congregate living facilities of independent living, assisted living, personal care and/or memory care at a density not to exceed 22 units per acre, but shall not include a nursing home or any other facility that requires a Certificate of Need.

Uses and standards described in the plan anticipate and describe single-family detached, single-family attached and multi-family forms of construction. If the use and/or form of housing for a particular phase is not specifically described or detailed in the plan, such a use or form may be approved administratively by staff based on then existing approved standards of the City of Gainesville for such a form of construction on similar sites elsewhere in the incorporated areas of the City.

Rental Percentage Breakdown

| Type              | Number | % of Total | % of Max Rental | Max # Rental |
|-------------------|--------|------------|-----------------|--------------|
| SF Detached       | 1,414  | 60%        | 21%             | 300*         |
| SF Attached       | 311    | 13%        | 96%             | 300*         |
| Multi-Family      | 640    | 27%        | 100%            | 640          |
| Total Residential | 2,365  | 100%       |                 | 940          |

\*COMBINED TOTAL OF SF DETACHED/SF ATTACHED SHALL NOT EXCEED 300 UNITS.

Phasing

- Phase 1 – The Developer intends to construct a portion of Gainesville Township Parkway (beyond the point constructed by the City) to access and serve approximately 200 single family detached lots, 150 single family attached units and 320 multi-family units. In addition, the Central Amenity will be started during Phase 1, with a completion no later than the completion of Phase 2.
- Phase 2 – The Developer intends to develop additional portions of the property, to serve 200 single family attached lots.
- Phase 3 – The Developer intends to develop additional portions of the property, to serve 200 single family attached lots.
- Phase 4 – The Developer intends to develop additional portions of the property, to serve 200 single family attached lots and 150 additional single family detached homes.
- Phase 5 & Future Phases – The Developer intends to complete the Gainesville Township Parkway and develop additional lots as demand warrants

Phasing is generally sequential, but may overlap. Lots of various sizes and ownership types may be under development concurrently in multiple portions of the overall site.



# ZONING REQUEST

## OF GAINESVILLE TOWNSHIP



The current zoning was approved in February 2001 as “Sussex”. The chart below shows the primary differences in the two plans:

### Comparison to Current Zoning Plan

| Version                       | Current Plan | Proposed Plan        |
|-------------------------------|--------------|----------------------|
| Name                          | Sussex       | Gainesville Township |
| Acreage                       | 965          | 1,122                |
| Single Family Detached Units* | 977          | 1,414                |
| Single Family Attached Units  | 197          | 311                  |
| Multi-Family Units            | 1,096        | 640                  |
| Total Residential             | 2,270        | 2,365                |
| Overall Density               | 2.35         | 2.11                 |
| Open Space                    | 548.5 acres  | 645.3 acres          |
| Commercial                    | 24,000 sf    | 75,000 sf            |

#### This request includes:

- Annexation and Rezoning of five parcels that are contiguous with the currently zoned property. These parcels total approximately 144 acres.
- Amend the existing zoning approval as detailed in the application, zoning narrative and conceptual site plan.
- Adopt the conditions of zoning as outlined below.

## STAFF PROPOSED CONDITIONS

1. The development standards within the applicant’s narrative, site plans, and architectural renderings shall be made part of the zoning ordinance, and shall be subject to the Community and Economic Development Director approval. Any zoning conditions adopted as part of this zoning ordinance that conflict with the applicant’s narrative, concept plan and architectural renderings shall take precedence over the applicant’s development standards.
2. The maximum number of single-family detached homes/lots shall be 1,414. The maximum number of single-family attached homes shall be 311. The maximum number of multi-family units shall be 640. The total number of residential units shall not exceed 2,365 units.
3. No more than 300 single-family units (detached and/or attached) and 640 multi-family units shall be rental units for a total of 940 rental units. The multi-family units may be any combination of traditional garden-style apartments, townhomes, manor houses, cottages, and/or carriage houses built within the confines of the multi-family areas.
4. Prior to permits being issued for the residential uses, each contractor/developer shall provide architectural renderings of the proposed single-family detached homes, attached townhomes and multi-family apartments for the review and approval of the Community and Economic Development Department Director.
5. The minimum heated floor space for single-family detached homes shall be as presented in the below table associated with zoning condition number 8. The minimum heated floor space for the attached townhomes shall be 1,100 square feet and 640 square feet for the multi-family units. The single-family detached homes and attached townhomes shall not exceed 3 stories in height. The multi-family apartment buildings shall not exceed 3 stories, although 3 / 4 splits shall be allowed.
6. All exterior wall front, sides, and rear of the single-family detached homes, townhomes, and multi-family units shall consist of a variety of building materials consistent with architectural themes and styles determined by the applicant. Foundation water tables of matching brick or stone material, that also covers all exposed foundation walls, will be used where architecturally compatible. Vinyl siding shall only be permitted on soffit areas.

#### Other architectural requirements will include:

- Carriage style garage doors with decorative hardware or other embellishments shall be used on all single-family detached homes and townhomes;
- The roofing material used on all single-family detached homes and townhomes shall be 3-tab architectural/dimensional style asphalt shingles or metal as appropriate to the architectural style of each home as determined by the builder.
- All overhangs including gables and side gables will have a minimum of a 12-inch overhang on all sides;
- The developer shall use a variety of techniques to avoid the monotonous appearance of identical single-family detached homes. Such techniques may employ among others the use of differing front elevations, architectural styles, building exteriors, and other similar techniques so that no single-family detached house is the same as any house directly in front of a single-family detached home or on either adjacent side of a single-family detached home;
- All roofs and gables shall be of a pitch no less than 8/12. This condition shall not apply to dormers, porches, bay windows, and third floor retreats;
- The exterior materials for all homes shall consist of brick, stone, fiber cement siding, cedar shake or wood siding;
- All roof vents, pipes, and other roof equipment (except chimneys) shall be located on the rear elevations and shall be painted to match the color of the roof;
- No above-ground swimming pools shall be permitted;
- No window air conditioning unit may be installed;
- No exterior blank, windowless walls will be constructed;
- If dormers are included, they will not be taller than the main roof;

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STAFF PROPOSED CONDITIONS (continued)

- All single-family detached house plans will have front or side loaded garages;
  - All townhomes will have front or rear entry garages;
  - Street lighting will be provided throughout the development;
  - All front porches of single-family detached homes shall have a minimum depth of 5’;
  - Windows are restricted to single hung or double hung windows.
- These requirements shall be included in the Covenants to be recorded against the property.*
7. Each detached single-family home and townhome shall have, at a minimum, an attached two car garage.
8. Specific development standards for the single-family detached homes shall include the following:

| Lot Width                           | *40'     | 50'      | 60'      | 75'      | 95'      |
|-------------------------------------|----------|----------|----------|----------|----------|
| Minimum lot size                    | 4,000 SF | 5,000 SF | 6,000 SF | 7,500 SF | 9,000 SF |
| Minimum Front Yard Setback          | 25'      | 25'      | 25'      | 25'      | 25'      |
| Minimum Side Yard Setback           | 5'       | 5'       | 5'       | 5'       | 5'       |
| Minimum Rear Yard Setback           | 10'      | 10'      | 10'      | 10'      | 10'      |
| Minimum Building Separation         | 10'      | 10'      | 10'      | 10'      | 10'      |
| Maximum Height (# of stories)       | 3        | 3        | 3        | 3        | 3        |
| Minimum Heated SF per Home          | 1,400 SF | 1,800 SF | 1,800 SF | 2,000 SF | 2,200 SF |
| **Maximum % of SF Detached Lot Type | 15%      | 35%      | 35%      | No Max   | No Max   |

- \*40’ LOTS ARE RESTRICTED TO AGE-RESTRICTED NEIGHBORHOODS ONLY.**
- \*\*ANY LOT ALLOCATION FROM A SMALLER CATEGORY MAY MOVE TO A LARGER CATEGORY.**
9. The front yard of each lot shall be sodded and planted with at least one 3” caliper in size hardwood tree.
10. The proposed amenities shall be required as shown on the site plan and the pictures shown on pages 10, 14, 15, 16, 17 28, 29, 57 and 66 of the applicant’s narrative submitted with this application per the approval of the Community and Economic Development Department Director. The amenity area must be started in the first phase of construction. No more than 250 single-family detached homes shall receive a certificate of occupancy (CO) prior to the Central Amenity Center being substantially completed as described on page 19 of the applicant’s narrative. This shall include at minimum the clubhouse, swim center with lap pool with children’s play area, tennis center with lighted courts, pickle ball courts, great lawn with pavilion for outdoor functions, and mail kiosk. Certain elements, such as additional courts may be phased in as demand dictates. Additional CO’s may be granted at the discretion of the Community and Economic Development Director, if sufficient progress is being made on the amenity.
11. Covenants shall be put in place by the developer restricting against the parking of boats, trailers, and campers within driveways or streets. In addition, no on street parking shall be permitted for vehicles.
12. No more than 10% of the units within the proposed community storage facility may be leased to non-residents of the proposed development. There are no restrictions for non-resident use of any commercially operated storage facility that is located within the Commercial District.
13. A Uniform Sign Plan as identified within Section 9-18-7-4 of the Unified Land Development Code shall be required from the developer and is subject to approval by the Gainesville Community Development Director. All signs associated with residential uses shall be limited to indirect lighting. All signs shall be located outside of utility areas and shall not block visibility of vehicular traffic.

14. All proposed detention ponds shall be fenced and landscaped in order to mitigate the view from all roads and adjacent properties. All fencing and landscaping materials shall be approved by the Community and Economic Development Department Director.
15. A site shall be made available within the boundaries of the proposed development to the City of Gainesville for a school consisting of twenty (20) acres of land which meets the criteria established by the Georgia State School Board for such a public school. This site shall be made available by the developer without charge for the land, at any time within seven (7) years after the developer has provided paved access to the site. Alternatively, the School Board may elect to receive an amount equal to the Developer’s per acre purchase price for 20 acres paid in two installments within 7 years of a land development permit being issued. The School Board shall identify a potential site no later than 180 days from closing, excluding any portions of the property that have been presented as Phase 1 of the community.
16. The developer agrees to make available an additional twenty (20) acres, for a total of forty (40) acres, if the City of Gainesville has a need for a second school site. The Gainesville School Board would be required to pay fair market value for this last twenty (20) acres. The School Board shall identify a potential site no later than 180 days from closing, excluding any portions of the property that have been presented as Phase 1 of the community.
17. A site shall be made available within the boundaries of the proposed development to the City of Gainesville for a fire station and a precinct for the police department consisting of not more than two (2) acres of land which will be designated by the developer and reasonably approved by the Gainesville City Council for such public services. This site shall be made available by the developer without charge for the land, at any time within seven (7) years after the developer has provided paved access to the site. This site has been identified on the Concept Plan and the City of Gainesville shall have 180 days from closing to determine if the site meets their requirements or if another site is preferred, however any portions of the property that have been presented as Phase 1 of the community shall be excluded.
18. The plan shall include a fifty (50’) foot perimeter buffer separating all portions of the development from the existing single-family communities to the south of the project site. The specific parcels are shown on the buffer exhibit attached. The composition of this buffer, including any fencing deemed necessary, shall be subject to final approval by the Community and Economic Development Department Director.
19. Minimum five foot (5’) wide sidewalks with a two foot (2’) grass beauty strip shall be required as shown on the Pedestrian Access Plan filed with this request. Applicant, at his sole discretion, shall substitute a five foot (5’) sidewalk with a ten foot (10’) multi-use trail (asphalt or concrete) where indicated on the Pedestrian Access Plan to be maintained by the Homeowners Association (HOA).
20. All new streets shall meet the standards within the current Gainesville Unified Land Development Code, unless varied herein. All proposed residential uses, commercial uses and amenities shall provide for pedestrian connectivity throughout the development. All costs associated with the improvements shall be at the full expense of the developer.
21. All access point design for the subject property shall be submitted for review and approval by the Gainesville Public Works Director, Hall County and/or the Georgia Department of Transportation. The main access road, from Old Cornelia Highway to Applicant’s property shall be constructed by the City of Gainesville at its expense. Applicant shall be responsible for access beyond this point and any other access points to the property.

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# MAPS & SURVEYS

OF GAINESVILLE TOWNSHIP

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Regional Activity Map  
ALTA Boundary Survey  
Conceptual Master Plan  
Land Use Plan  
Pedestrian Access Plan  
Proposed Open Space Plan  
Proposed Entrance Rendering  
Proposed Amenity Rendering

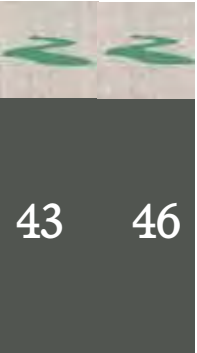
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View  
Map

MAPS & SURVEYS

Regional Activity Map

Fold open to view



GAINESVILLE  
TOWNSHIP

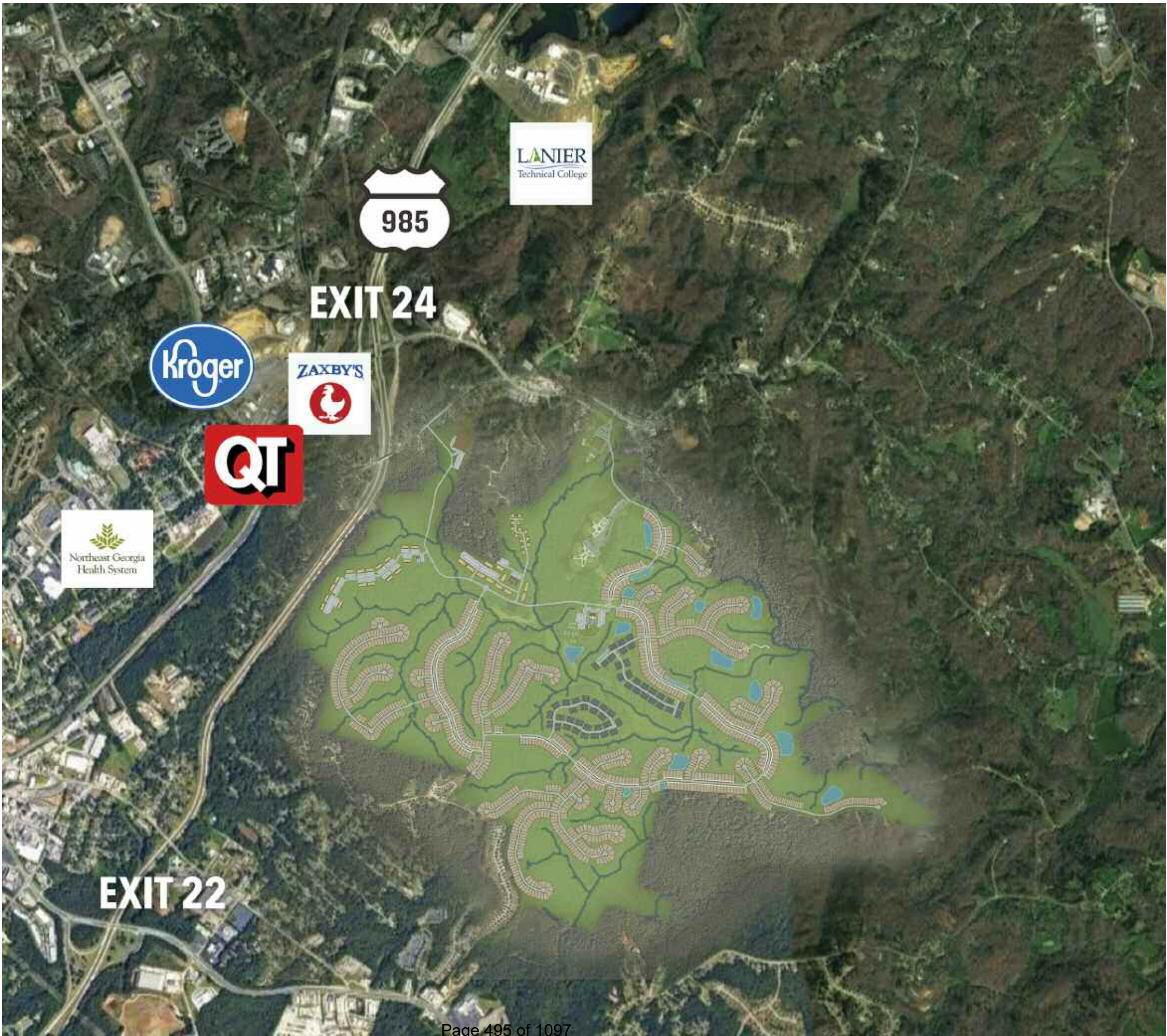


GAINESVILLE TOWNSHIP

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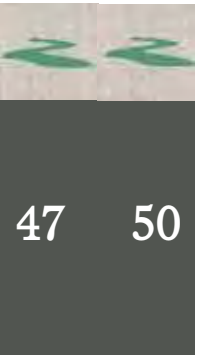
View  
Map

MAPS & SURVEYS

ALTA Boundary Survey

Sheet 1 of 5

Fold open to view



GAINESVILLE  
TOWNSHIP



GAINESVILLE TOWNSHIP

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Page 497 of 1097



MAPS & SURVEYS

ALTA Boundary Survey

Sheet 2 of 5

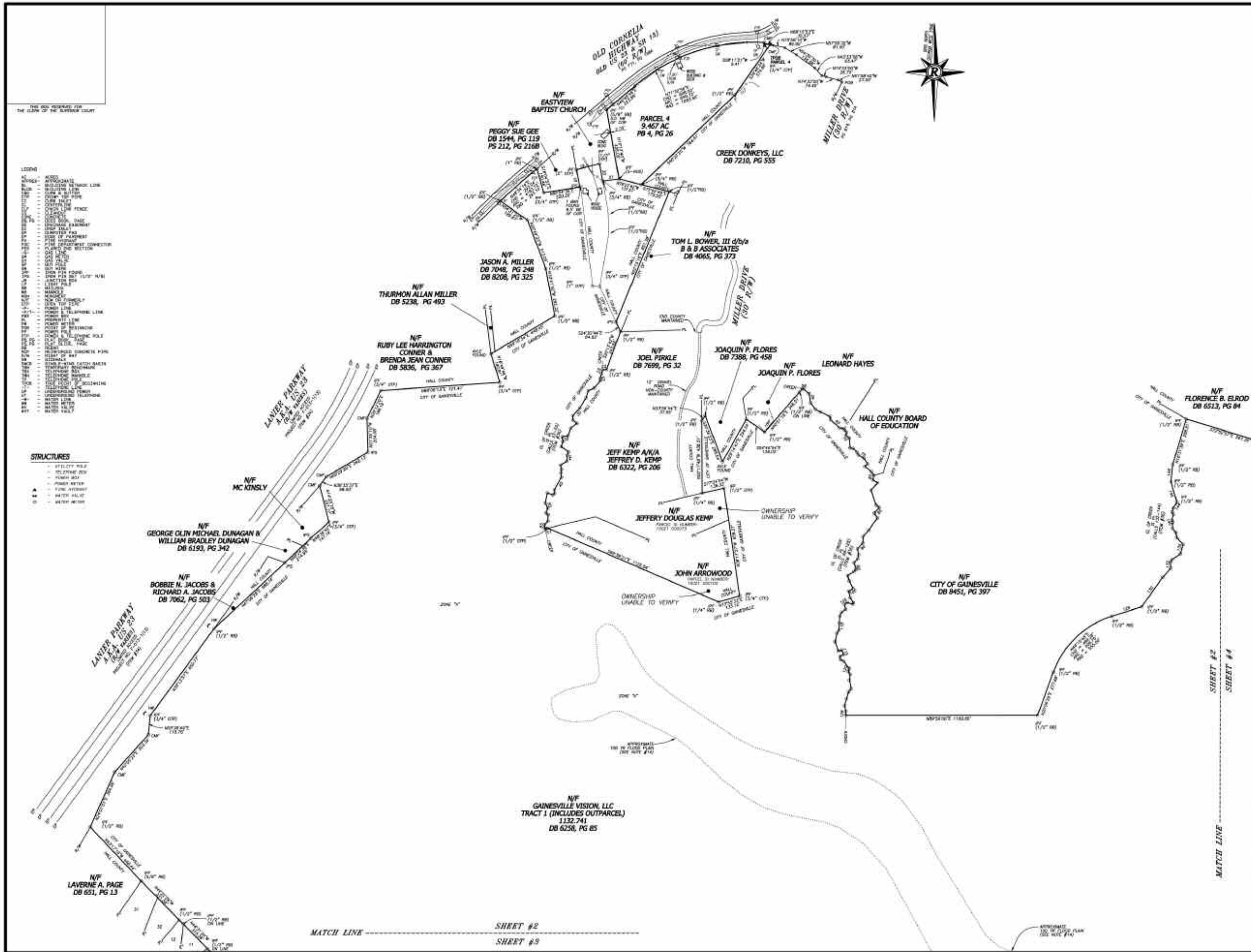
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GAINESVILLE  
TOWNSHIP



GAINESVILLE TOWNSHIP



**Rochester & Associates, Inc.**  
435 Oak Street N.W., Gainesville, Georgia 32601  
(770) 731-6000 (770) 731-6001 Fax: (770) 731-6002

ALWAYS USE THE PLAT FOR  
CABALLERO HOLDING, LLC,  
GAINESVILLE VISION, LLC, &  
OLD REPUBLIC NATIONAL INSURANCE COMPANY

| NO. | DATE | DESCRIPTION |
|-----|------|-------------|
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SCALE: 1" = 100'

GEORGIA  
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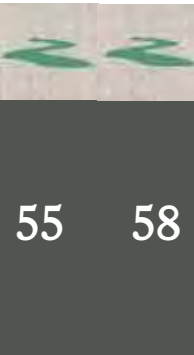
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MAPS & SURVEYS

ALTA Boundary Survey

Sheet 3 of 5

Fold open to view



GAINESVILLE  
TOWNSHIP



GAINESVILLE TOWNSHIP



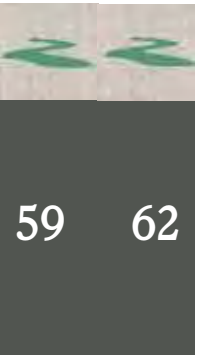


MAPS & SURVEYS

ALTA Boundary Survey

Sheet 4 of 5

Fold open to view



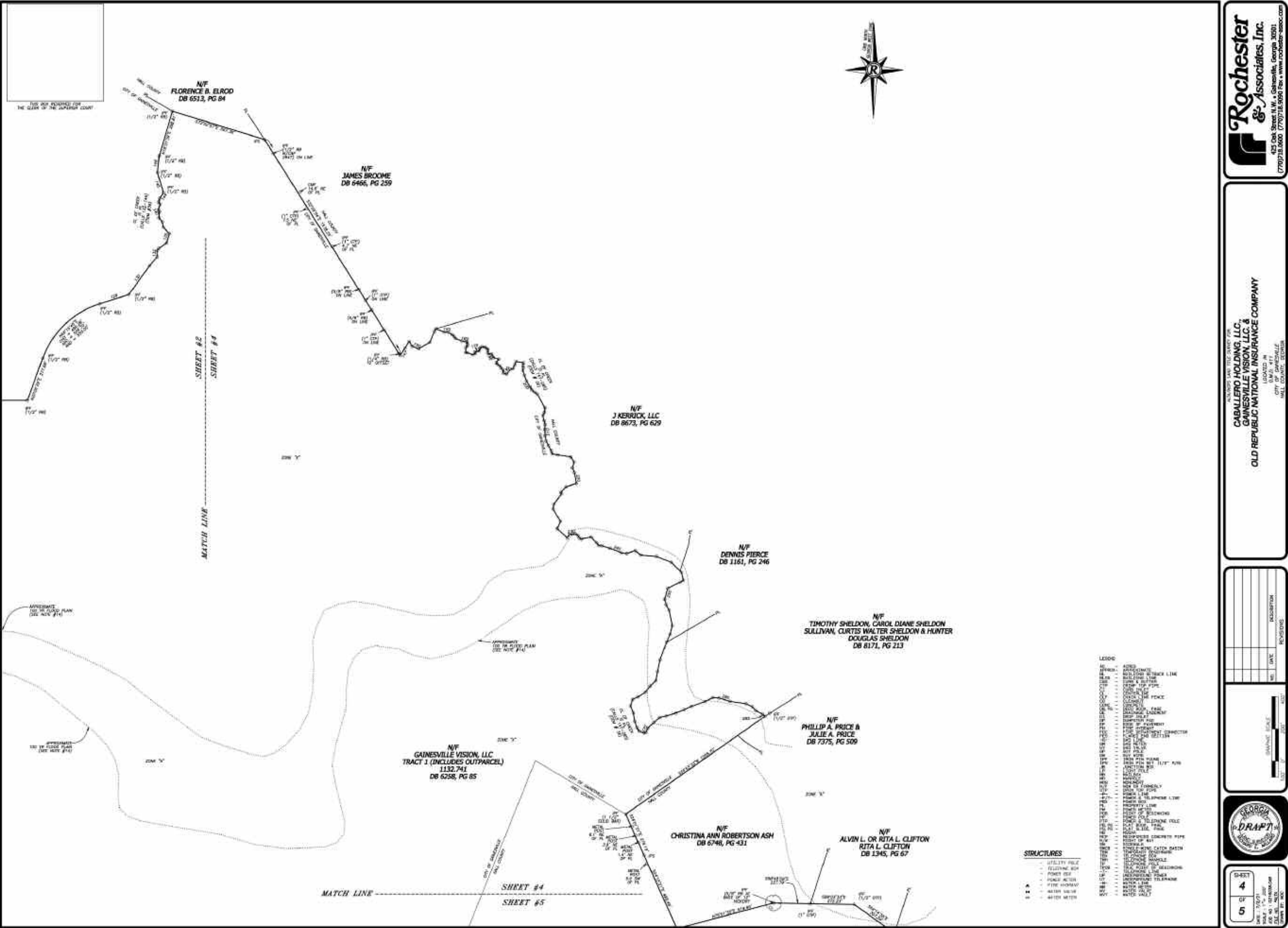
GAINESVILLE  
TOWNSHIP



GAINESVILLE TOWNSHIP

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**Rochester & Associates, Inc.**  
435 Oak Street N.W., Gainesville, Georgia 32601  
(770) 731-6000 (770) 731-6001 Fax: (770) 731-6002

ALWAYS USE THE SURVEY FOR  
**CABALLERO HOLDING, LLC,  
GAINESVILLE VISION, LLC, &  
OLD REPUBLIC NATIONAL INSURANCE COMPANY**  
LOCATED IN  
CITY OF GAINESVILLE  
HALL COUNTY, GEORGIA

| NO. | DATE | REVISIONS |
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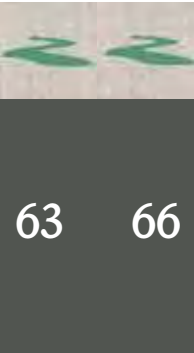
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BY: J. L. CLIFTON  
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MAPS & SURVEYS

ALTA Boundary Survey

Sheet 5 of 5

Fold open to view



GAINESVILLE  
TOWNSHIP

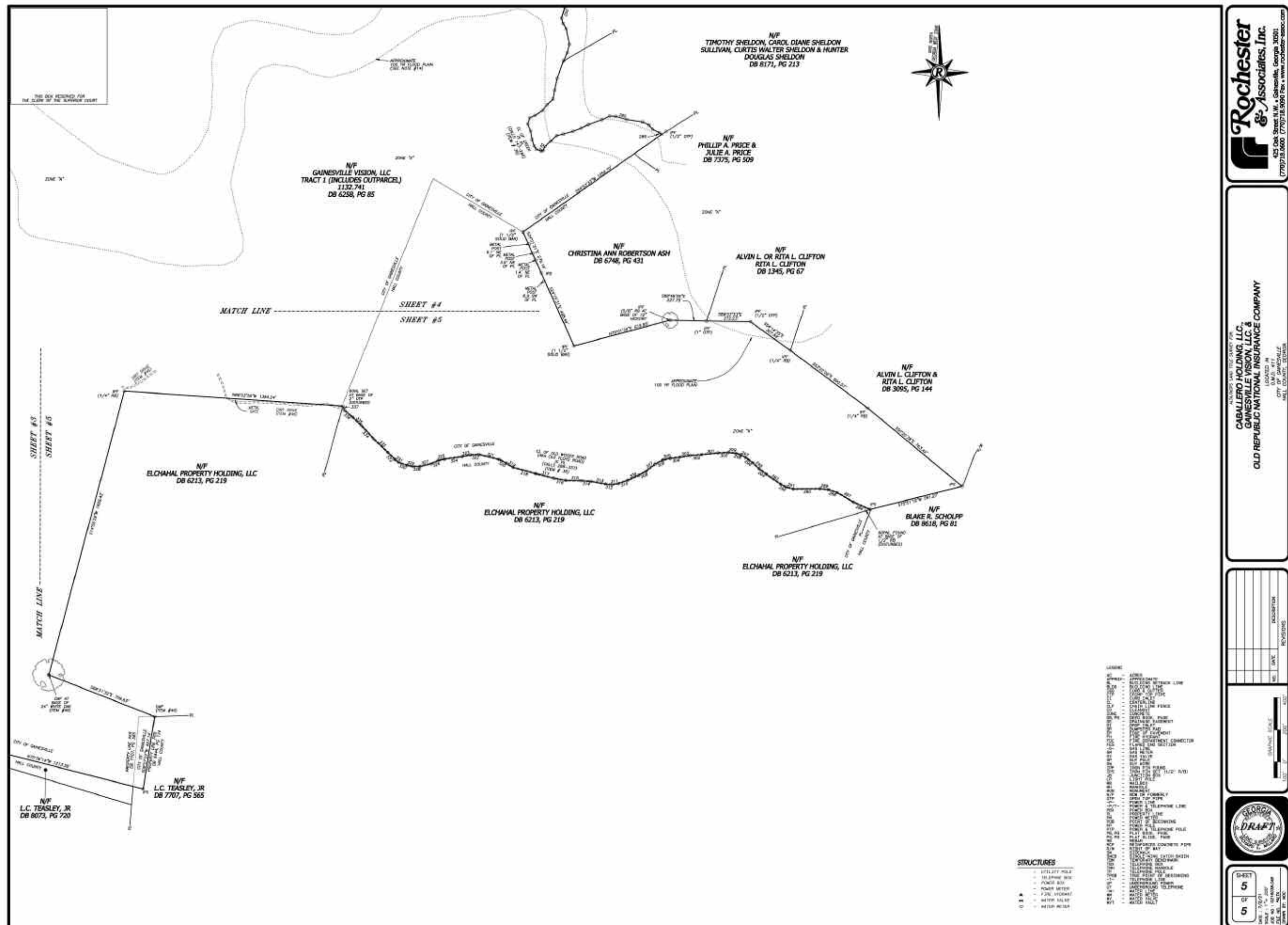


GAINESVILLE TOWNSHIP

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DRAFT





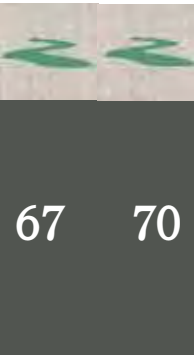


MAPS & SURVEYS

Conceptual Master Plan

Fold open to view

The development of the Community shall be controlled by this Narrative, the Master Plan, attached hereto, Zoning Condition Modifications referenced above and other exhibits provided as modified in the final approval. The Plan is considered conceptual in nature, and certain modifications to that Plan are anticipated as reflected in the specific language herein. Beyond such specific language, modifications of the location and arrangement of lots, roads, amenities and other improvements that do not materially conflict with specific standards and requirements of these conditions may be made by the Developer, so long as such modification does not materially alter the location or nature of improvements within 100 feet of the Community Boundary, or impact previously recorded residential sections, or change the land use or increase density.



GAINESVILLE TOWNSHIP

GAINESVILLE  
TOWNSHIP







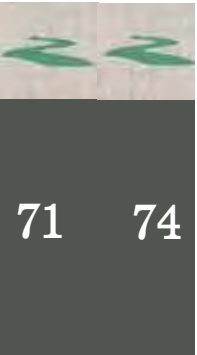


View  
Map

MAPS & SURVEYS

Land Use Plan

Fold open to view



GAINESVILLE  
TOWNSHIP

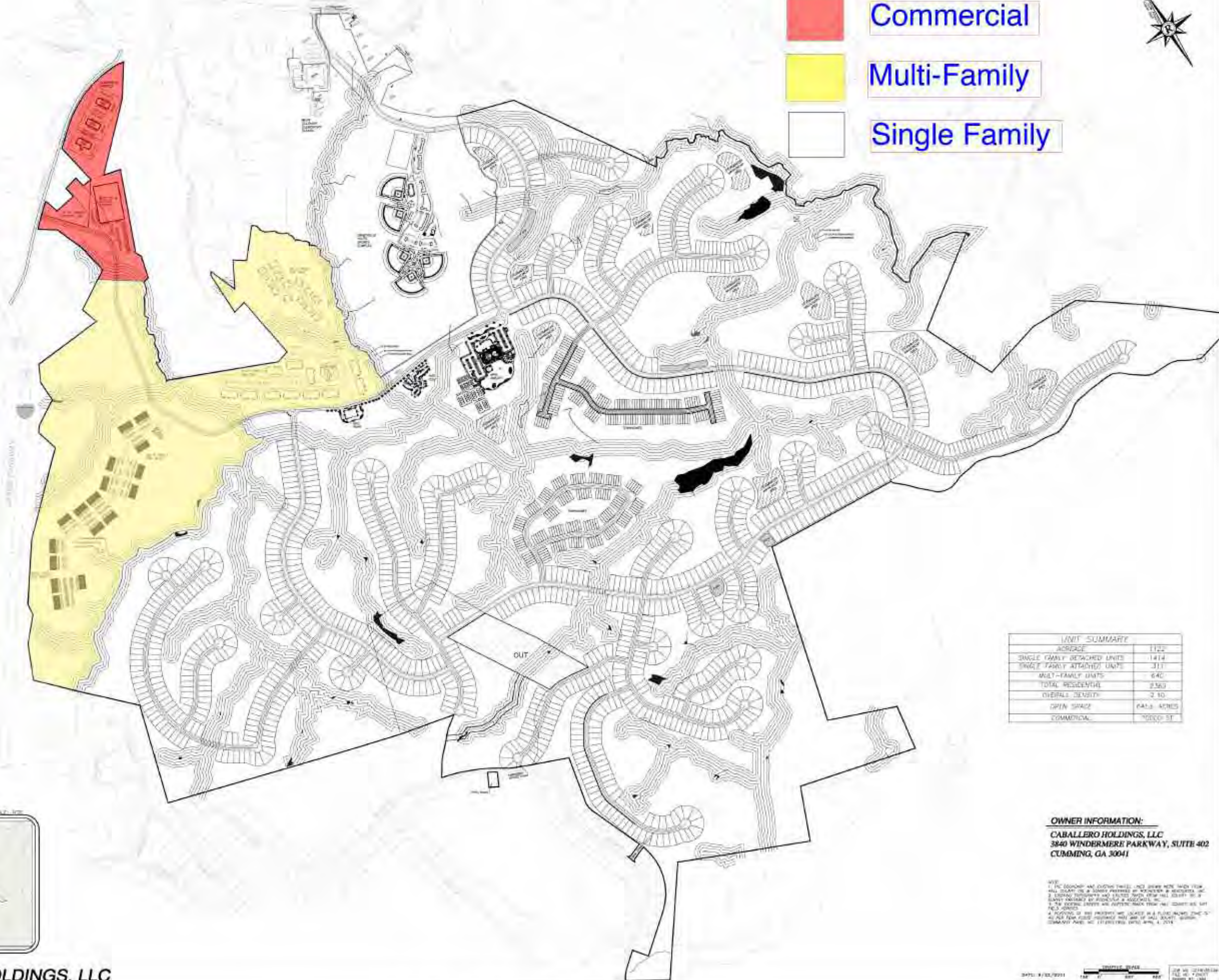


GAINESVILLE TOWNSHIP

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- Commercial
- Multi-Family
- Single Family



| UNIT SUMMARY                 |             |
|------------------------------|-------------|
| ACRES                        | 1122        |
| SINGLE FAMILY DETACHED UNITS | 1414        |
| SINGLE FAMILY ATTACHED UNITS | 311         |
| MULTI-FAMILY UNITS           | 640         |
| TOTAL RESIDENTIAL            | 2565        |
| OVERALL DENSITY              | 2.30        |
| OPEN SPACE                   | PAVED ACRES |
| COMMERCIAL                   | 10000 ST    |

**OWNER INFORMATION:**  
**CABALLERO HOLDINGS, LLC**  
 3840 WINDERMERE PARKWAY, SUITE 402  
 CUMMING, GA 30041

NOTES:  
 1. THE BOUNDARY AND LOT LINES SHOWN HEREIN WERE TAKEN FROM THE PLAT OF THE LAND AND ARE NOT TO BE CONSIDERED AS A GUARANTEE OF THE ACCURACY OF THE INFORMATION.  
 2. EXISTING UTILITIES AND STRUCTURES ARE SHOWN FOR INFORMATION ONLY.  
 3. THE EXISTING UTILITIES ARE SHOWN FROM THE CITY OF GAINESVILLE.  
 4. THE PLAT OF THE LAND IS LOCATED IN THE PLAT BOOKS 24-25.  
 5. ALL LOT LINES AND DISTANCES WERE TAKEN FROM THE PLAT BOOKS 24-25.  
 6. THE PLAT BOOKS 24-25 ARE LOCATED IN THE CITY OF GAINESVILLE.



**CABALLERO HOLDINGS, LLC**

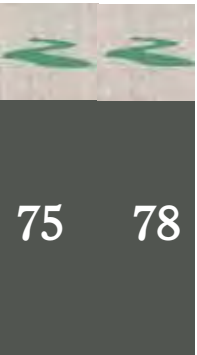
CITY OF GAINESVILLE  
 HALL COUNTY, GEORGIA



MAPS & SURVEYS

Pedestrian Access Plan

Fold open to view

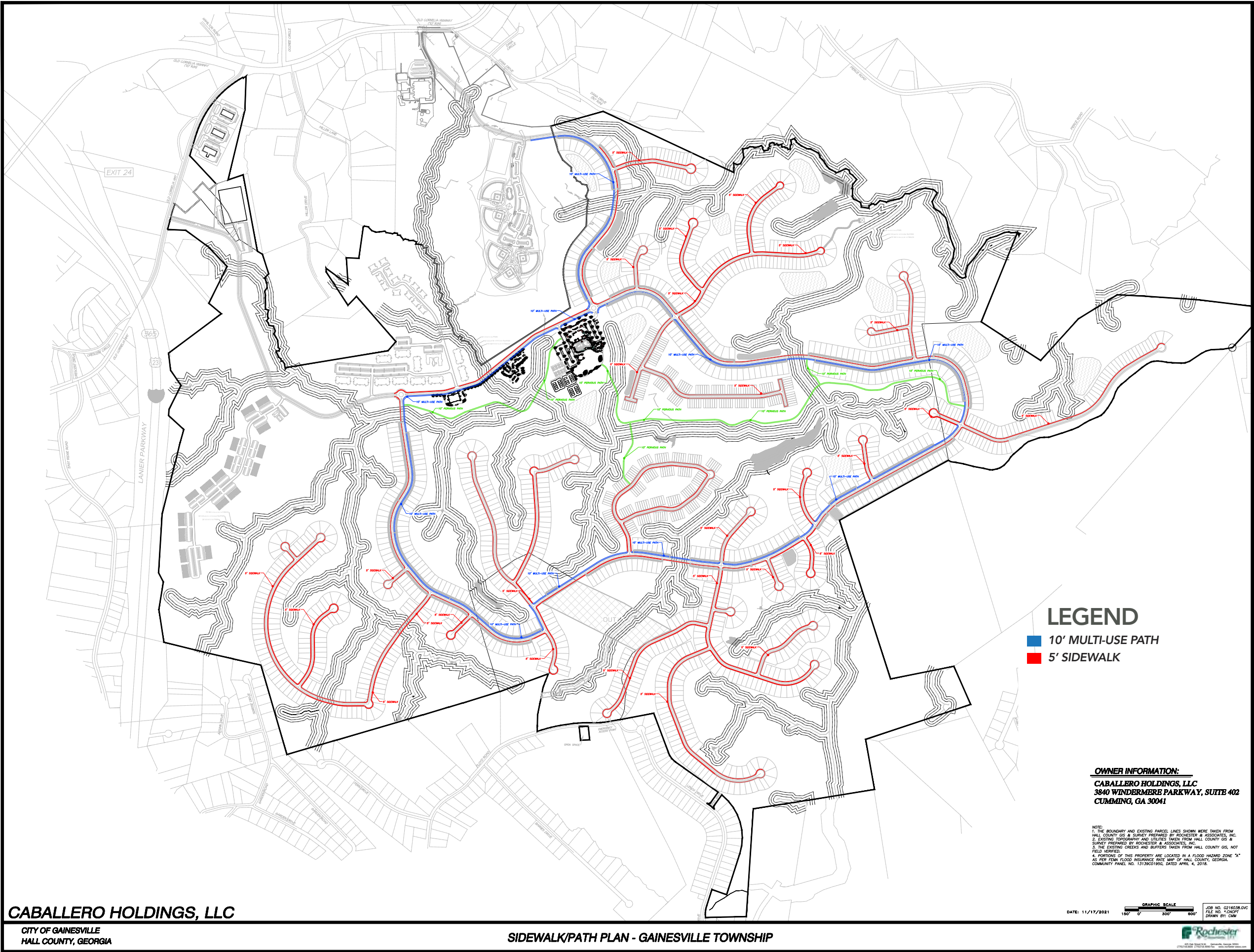


GAINESVILLE  
TOWNSHIP



GAINESVILLE TOWNSHIP





**CABALLERO HOLDINGS, LLC**  
CITY OF GAINESVILLE  
HALL COUNTY, GEORGIA

**SIDEWALK/PATH PLAN - GAINESVILLE TOWNSHIP**

**LEGEND**  
10' MULTI-USE PATH  
5' SIDEWALK

**OWNER INFORMATION:**  
**CABALLERO HOLDINGS, LLC**  
**3840 WINDERMERE PARKWAY, SUITE 402**  
**CUMMING, GA 30041**

**NOTE:**  
1. THE BOUNDARY AND EXISTING PARCEL LINES SHOWN WERE TAKEN FROM HALL COUNTY GIS & SURVEY PREPARED BY ROCHESTER & ASSOCIATES, INC.  
2. EXISTING TOPOGRAPHY AND UTILITIES TAKEN FROM HALL COUNTY GIS & SURVEY PREPARED BY ROCHESTER & ASSOCIATES, INC.  
3. THE EXISTING CREEKS AND BUFFERS TAKEN FROM HALL COUNTY GIS, NOT FIELD VERIFIED.  
4. PORTIONS OF THIS PROPERTY ARE LOCATED IN A FLOOD HAZARD ZONE "X" AS PER FEMA FLOOD INSURANCE RATE MAP OF HALL COUNTY, GEORGIA, COMMUNITY PANEL NO. 13135C01950, DATED APRIL 4, 2018.

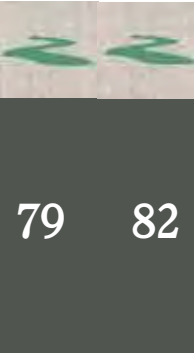
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MAPS & SURVEYS

Proposed  
Open Space Plan

Fold open to view

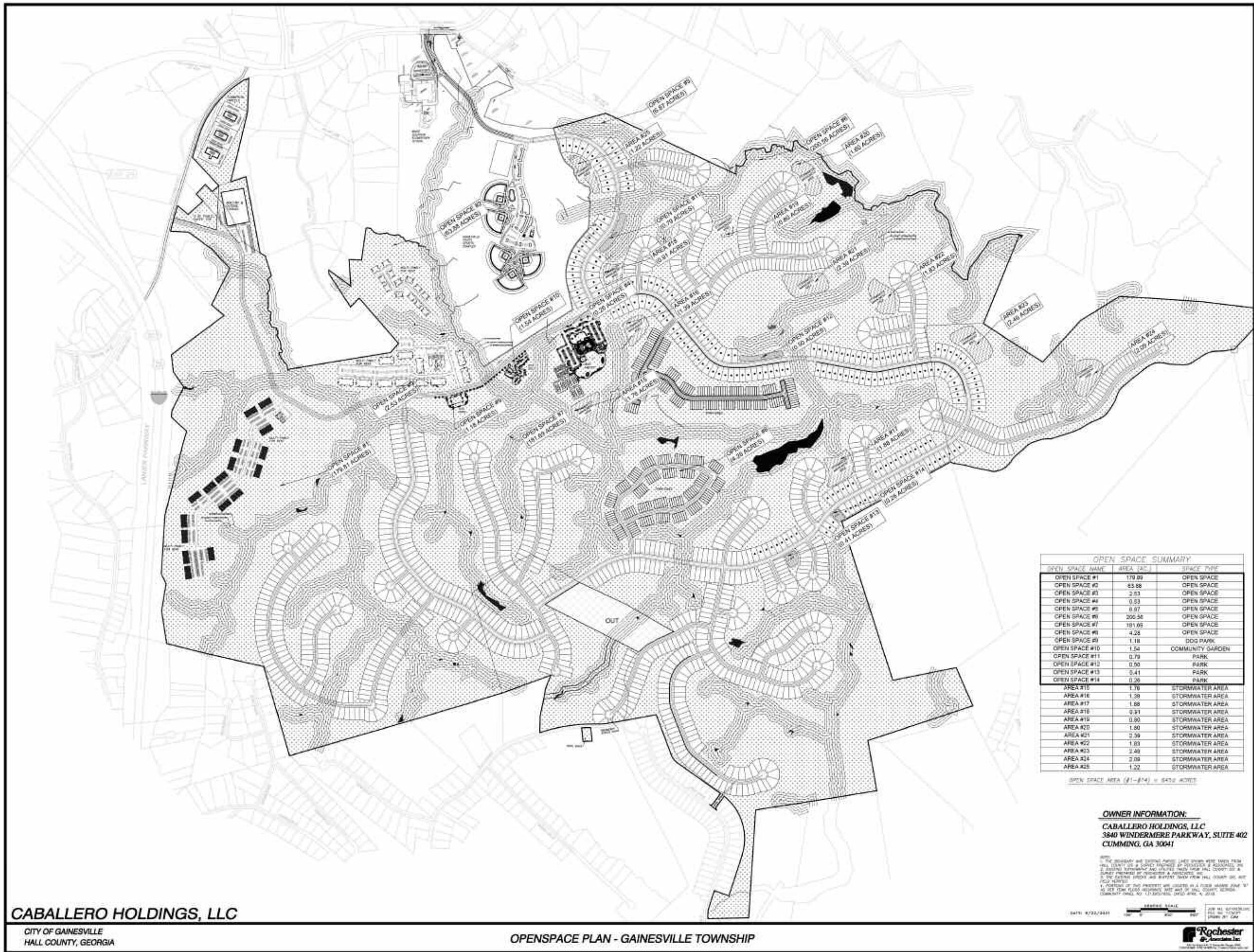


GAINESVILLE  
TOWNSHIP



GAINESVILLE TOWNSHIP





CABALLERO HOLDINGS, LLC

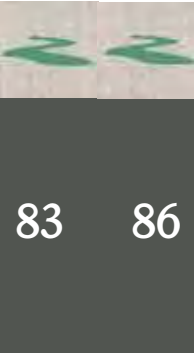
CITY OF GAINESVILLE  
HALL COUNTY, GEORGIA

OPENSOURCE PLAN - GAINESVILLE TOWNSHIP

MAPS & SURVEYS

Proposed  
Entrance Rendering

Fold open to view



GAINESVILLE TOWNSHIP

GAINESVILLE  
TOWNSHIP





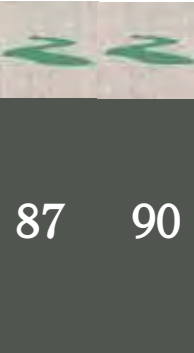




MAPS & SURVEYS

Proposed  
Amenity Rendering

Fold open to view



GAINESVILLE TOWNSHIP

GAINESVILLE  
TOWNSHIP





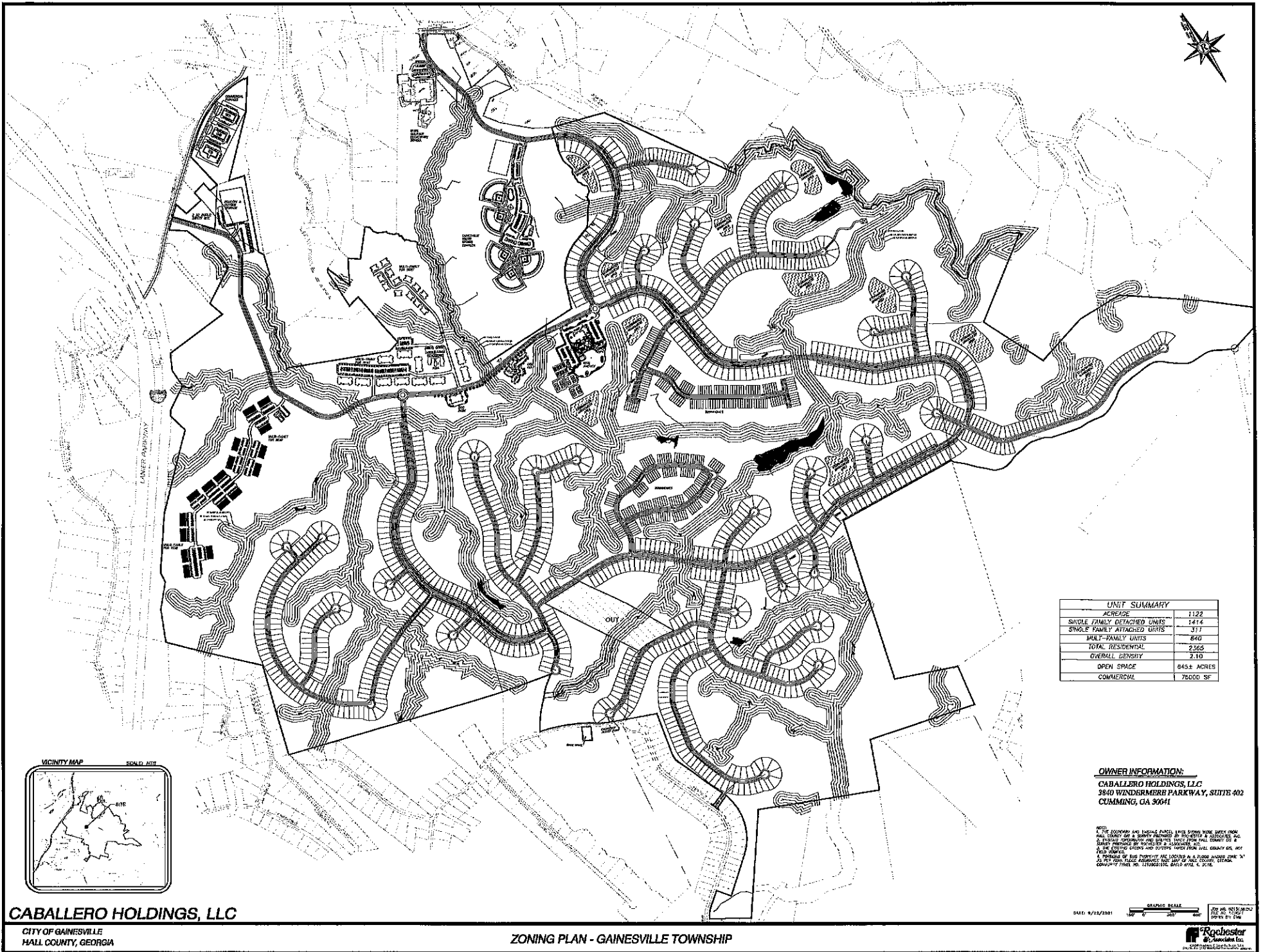




GAINESVILLE  
TOWNSHIP



v.11.02.21



| UNIT SUMMARY                 |             |
|------------------------------|-------------|
| ACREAGE                      | 7122        |
| SINGLE FAMILY DETACHED UNITS | 7414        |
| SINGLE FAMILY ATTACHED UNITS | 317         |
| MULTI-FAMILY UNITS           | 640         |
| TOTAL RESIDENTIAL            | 2365        |
| OVERALL DENSITY              | 2.10        |
| OPEN SPACE                   | 845.8 ACRES |
| COMMERCIAL                   | 76000 SF    |

**OWNER INFORMATION:**  
 CABALLERO HOLDINGS, LLC  
 3840 WINDERMERE PARKWAY, SUITE 402  
 CUMMING, GA 30041

NOTES:  
 1. THE PROPERTY AND EXISTING FACILITIES SHOWN WERE OBTAINED FROM THE CITY OF GAINESVILLE AND THE COUNTY OF HALL COUNTY. THE CITY OF GAINESVILLE AND THE COUNTY OF HALL COUNTY ARE NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED HEREON.  
 2. THE PROPERTY AND EXISTING FACILITIES SHOWN WERE OBTAINED FROM THE CITY OF GAINESVILLE AND THE COUNTY OF HALL COUNTY. THE CITY OF GAINESVILLE AND THE COUNTY OF HALL COUNTY ARE NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED HEREON.  
 3. A PORTION OF THE PROPERTY IS LOCATED IN A FLOOD HAZARD ZONE "X".  
 4. THE FLOOD HAZARD ZONE "X" IS SHOWN ON THE MAP OF THE CITY OF GAINESVILLE, GEORGIA.  
 5. THE FLOOD HAZARD ZONE "X" IS SHOWN ON THE MAP OF THE CITY OF GAINESVILLE, GEORGIA.  
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 9. THE FLOOD HAZARD ZONE "X" IS SHOWN ON THE MAP OF THE CITY OF GAINESVILLE, GEORGIA.  
 10. THE FLOOD HAZARD ZONE "X" IS SHOWN ON THE MAP OF THE CITY OF GAINESVILLE, GEORGIA.

**CABALLERO HOLDINGS, LLC**

CITY OF GAINESVILLE  
 HALL COUNTY, GEORGIA

**ZONING PLAN - GAINESVILLE TOWNSHIP**

DATE: 9/22/2001  
 SCALE: 1" = 100'  
 PREPARED BY: JWC

**Robbester**  
 & Associates, Inc.  
 1000 W. GAINESVILLE AVENUE, SUITE 100  
 GAINESVILLE, GEORGIA 30601





CABALLERO HOLDINGS, LLC

CITY OF GAINESVILLE  
HALL COUNTY, GEORGIA

OVERALL LAND PLAN - GAINESVILLE TOWNSHIP

**OWNER INFORMATION:**  
CABALLERO HOLDINGS, LLC  
3840 WINDERMERE PARKWAY, SUITE 402  
CUMMING, GA 30041

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COMMUNITY FIRM NO. 121000750G, DATED APRIL 4, 2018.

DATE: 8/23/2021

GRAPHIC SCALE

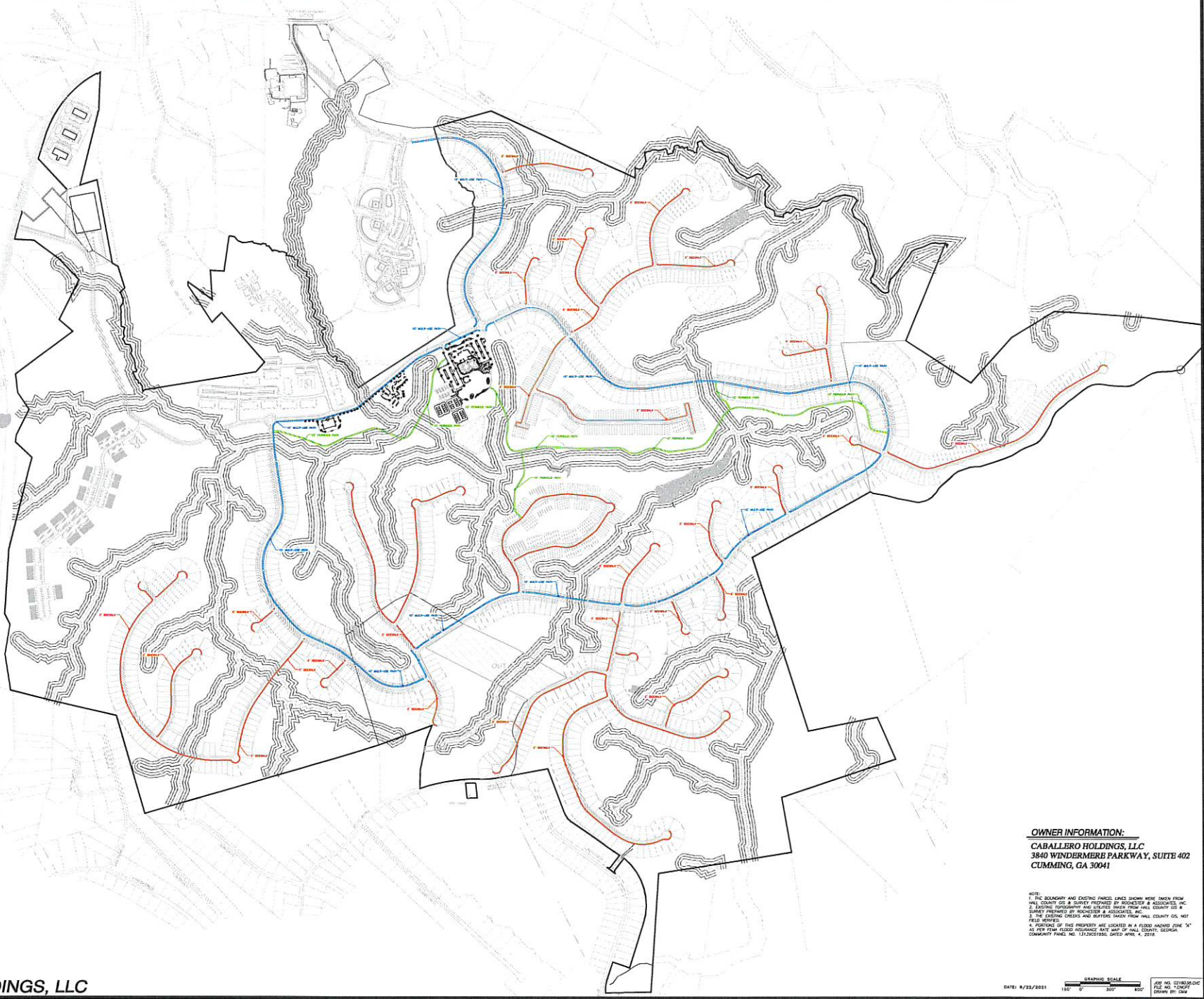
100' 0" 200' 400'

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FILE NO. "CONCEPT"  
DRAWN BY: JLF

**Rochester**  
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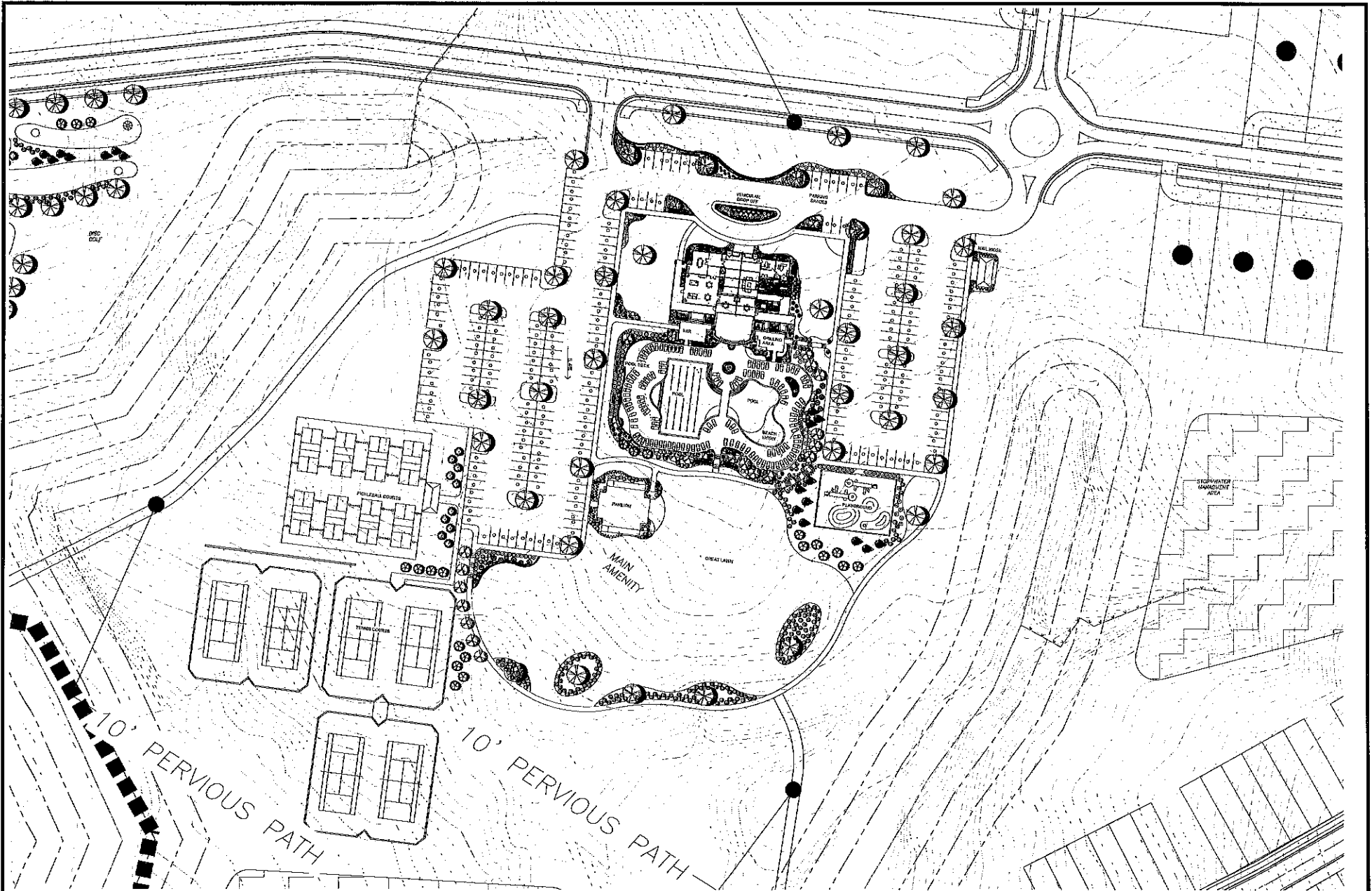






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COMMITTEE PANEL NO. 131200000, DATED APRIL 4, 2018



**CABALLERO HOLDINGS, LLC**

CITY OF GAINESVILLE  
HALL COUNTY, GEORGIA

MAIN AMENITY - GAINESVILLE TOWNSHIP

**OWNER INFORMATION:**  
CABALLERO HOLDINGS, LLC  
3640 WINDERMERE PARKWAY, SUITE 402  
CUMMING, GA 30041

DATE: 9/12/2021

GRAPHIC SCALE  
1" = 10'

FOR THE TOWN OF  
GAINESVILLE, FL  
BY: **Rochester**  
INCORPORATED  
AUGUST 2021

# **TRAFFIC IMPACT STUDY**

Prepared For  
**ROCHESTER & ASSOCIATES**

## **SUSSEX RESIDENTIAL DEVELOPMENT TRAFFIC IMPACT STUDY GAINESVILLE, GA**

April 13, 2021





**Report Submitted: April 13, 2021**

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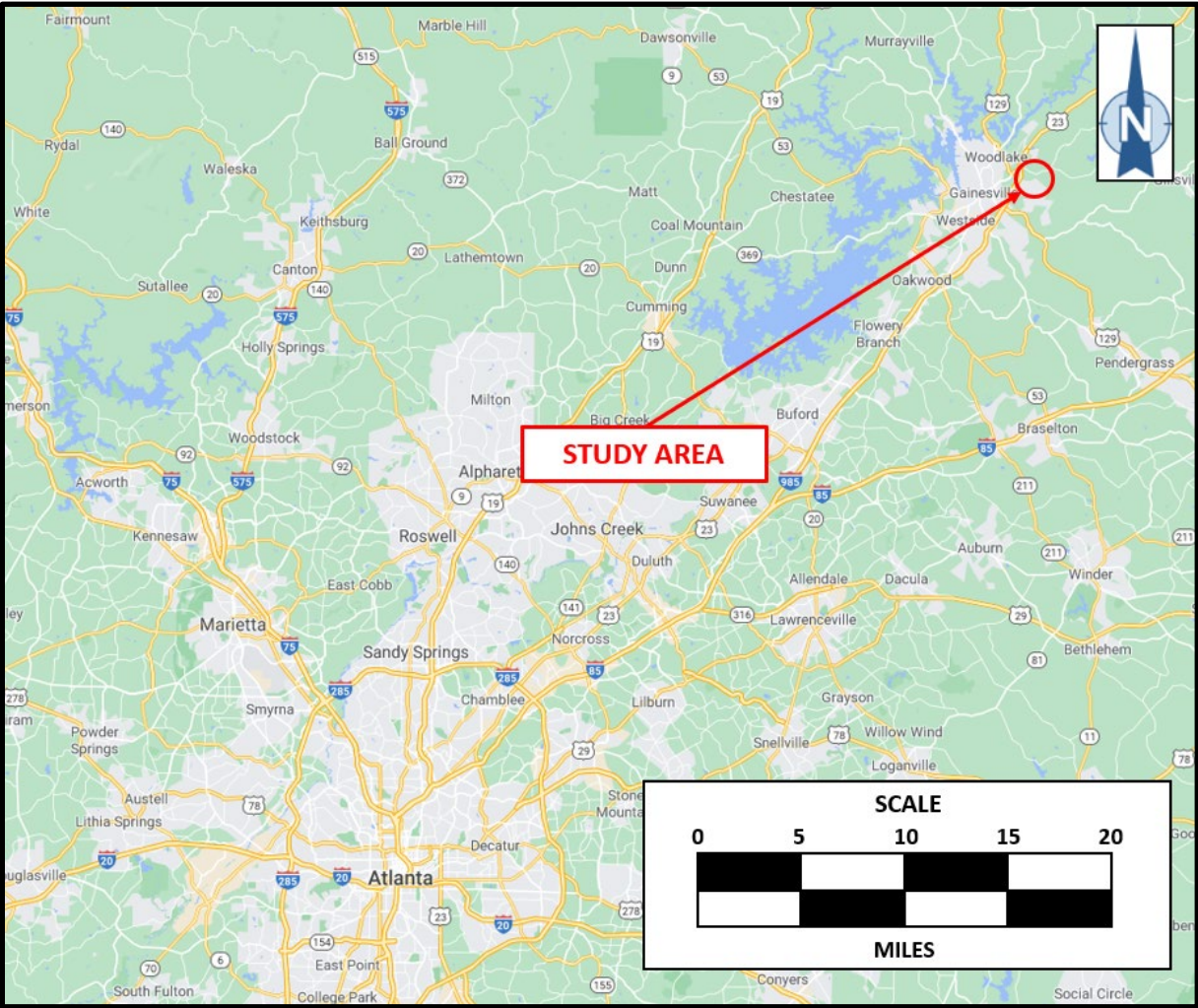
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# INTRODUCTION

The purpose of this study is to conduct a Traffic Impact Study (TIS) for the proposed residential development and a intersection analysis for the proposed site driveway on Old Cornelia Highway between White Sulphur Elementary School and Dana Drive. The development is located in Hall County, Georgia. The project location is shown in Figure 1.

Figure 1: PROJECT LOCATION MAP





The study intersections are shown below in Figure 2.

Figure 2: STUDY INTERSECTION MAP





## NEARBY PLANNED PROJECTS

The area surrounding the proposed study area was searched for potential information regarding other relevant projects. The following public entities were examined for projects that overlap in scope with this project:

- Federally funded transportation projects in the Statewide Transportation Improvement Program (STIP)
- MPO funded transportation projects in the Transportation Improvement Program (TIP)
- Transportation projects in the Regional Transportation Program (RTP), funded from local, state, and federal planning partners
- Georgia Department of Transportation projects identified in the GeoPI website

There is a single planned project that would impact this study. Information regarding this project is shown below in Table 1 below.

**Table 1: OTHER PLANNED PROJECTS**

| PUBLIC DOMAIN | PROJECT NUMBER | PROJECT TITLE                 | PROJECT BOUNDARY/INTERSECTION                                  | PRELIMINARY (PE) YEAR | CONSTRUCTION (CST) YEAR |
|---------------|----------------|-------------------------------|----------------------------------------------------------------|-----------------------|-------------------------|
| GeoPI         | 132280-        | Old Cornelia Highway Widening | Jesse Jewell Parkway/Old Cornelia Highway to Joe Chandler Road | 2051                  | 2051                    |

There is a long range widening project on Old Cornelia Highway between Jesse Jewell Parkway and Joe Chandler Highway scheduled to begin construction in 2051.

## PLANNED DEVELOPMENT

The proposed Sussex development is a residential development on approximately 472 acres. The site plan provides for 1,226 single-family homes, 924 multi-family homes, 190 townhomes, and a youth baseball park. The development is proposed to initially have one access on Old Cornelia Highway between White Sulphur Elementary School and Dana Drive, with two future entrances planned on Old Cornelia Highway south of Jesse Jewell Parkway and Floyd Road.

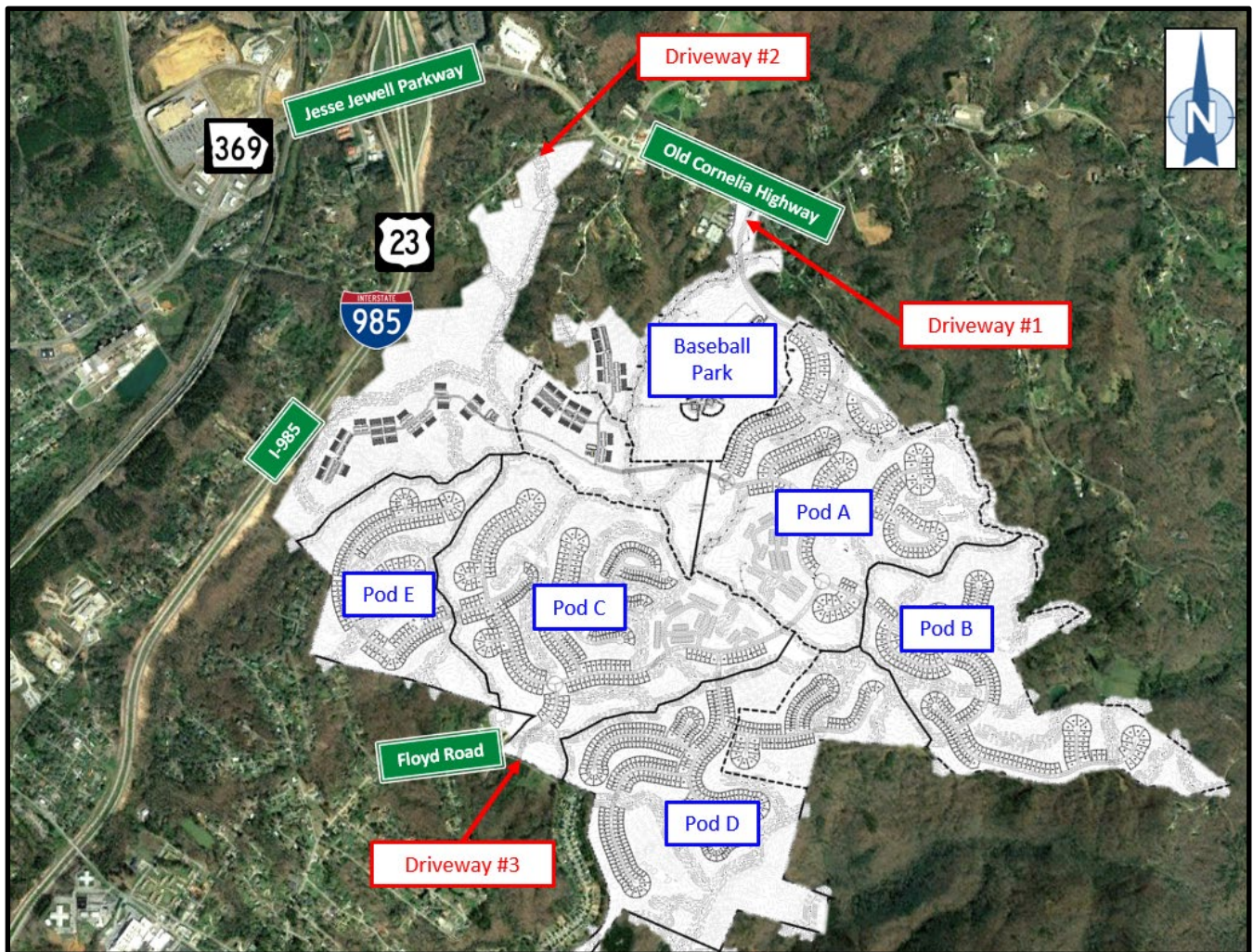
The development is projected to be constructed at a rate of 160 homes per year, and is anticipated to be built-out by 2035. For the purposes of the study, the development was evaluated in three phases:

- **Phase 1 (2025)** – A youth baseball park, 436 single family homes, 190 townhomes, and 174 multi-family homes.
- **Phase 2 (2030)** – 50 single family homes and 750 multi-family homes.
- **Phase 3 (2035)** – 740 single family homes

It was assumed that a second access point on Old Cornelia Highway would be open by 2030, and a third access point on Floyd Road would be open by 2035.

A site plan is shown in Figure 3. A larger scale site plan is included in Appendix A.

**Figure 3: SITE PLAN**

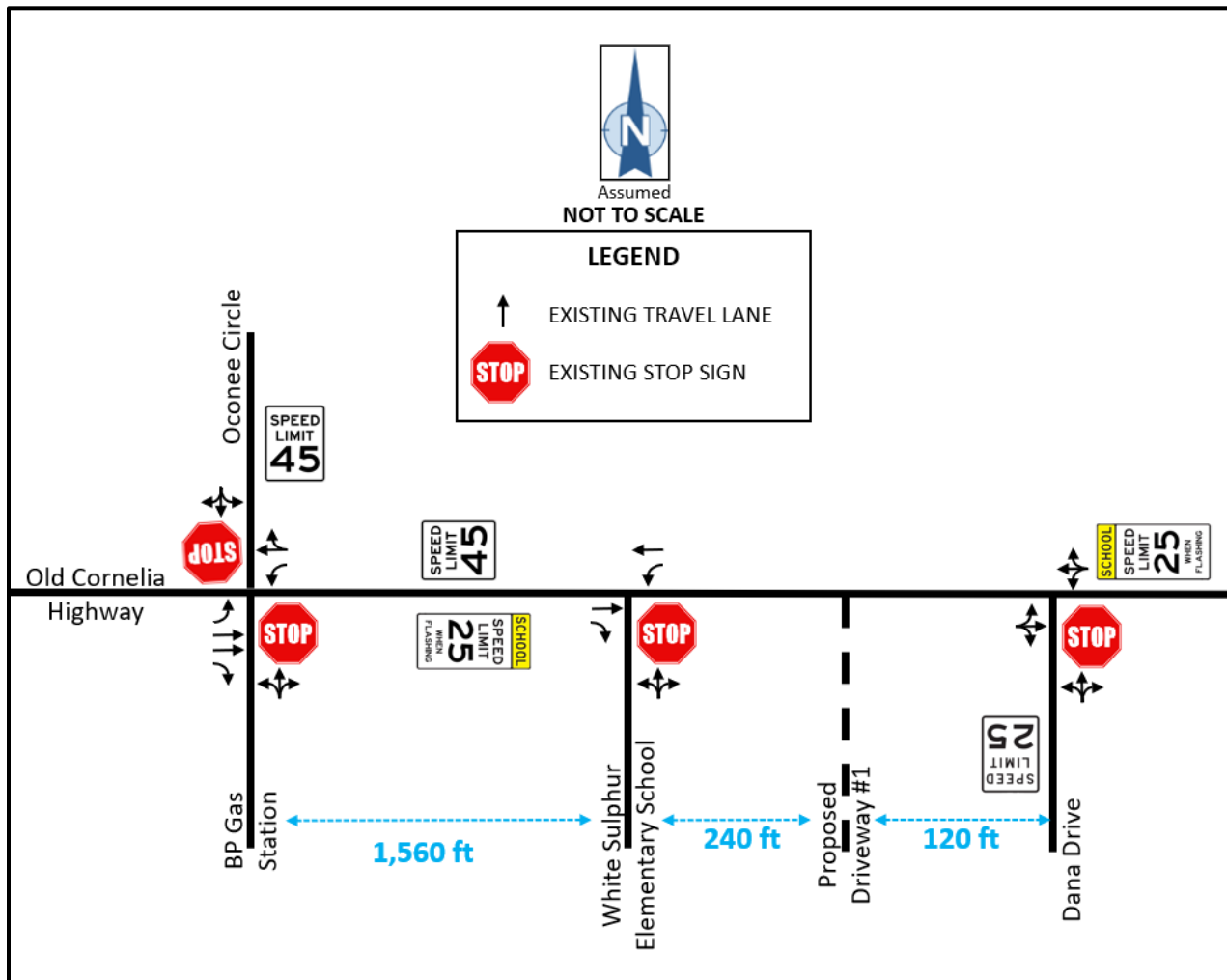


## EXISTING CONDITIONS

An inventory was conducted of the current conditions at the study intersections, including roadway geometry, traffic control, and traffic volumes.

The existing roadway geometry and traffic control in the study area are shown in Figure 4 below.

Figure 4: EXISTING CONDITIONS



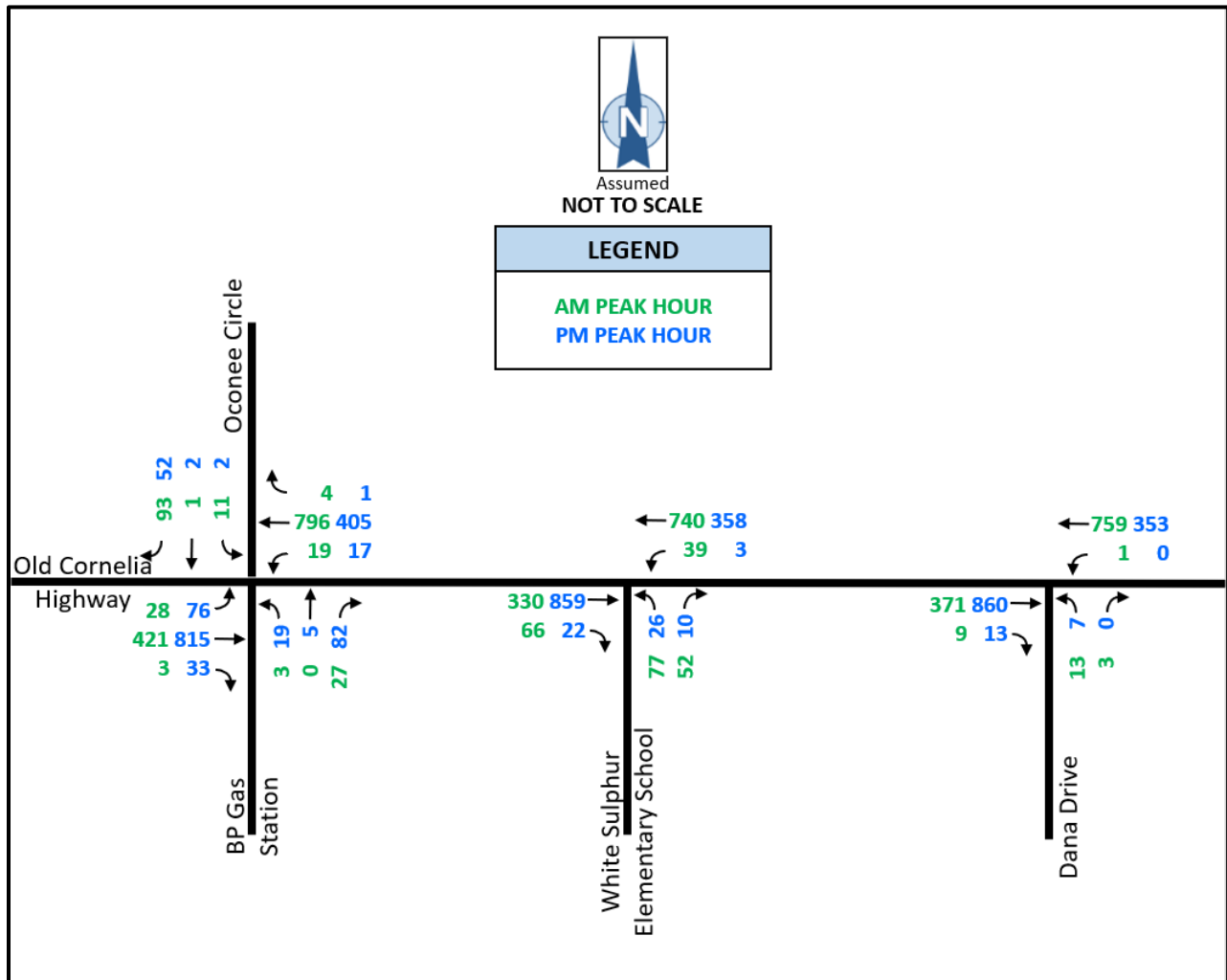


## TURNING MOVEMENT VOLUMES

Turning Movement Counts (TMC's) were conducted at the study intersection on Wednesday, February 17, 2021 from 7:00 AM to 9:00 AM and from 4:30 PM to 6:30 PM. Turning movement data is provided in Appendix B.

Existing Peak Hour turning movement volumes are shown in Figure 5 below. The AM Peak Hour was found to be 7:15 to 8:15 AM, and the PM Peak Hour was found to be 4:45 to 5:45 PM.

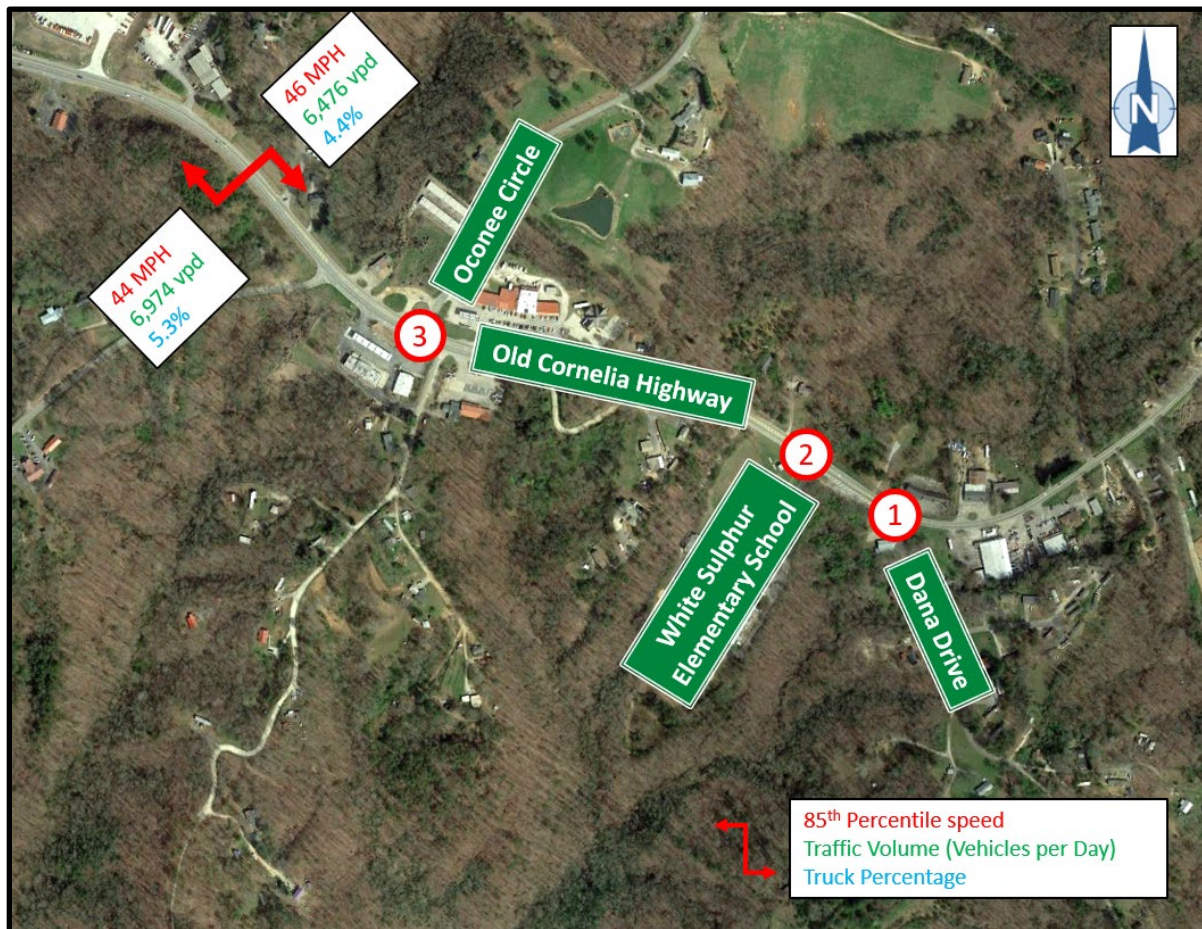
**Figure 5: EXISTING 2021 TRAFFIC VOLUMES**



## AUTOMATIC TRAFFIC RECORDER

An Automatic Traffic Recorder (ATR) was placed on Old Cornelia Highway at GDOT Count Station #139-0210 to collect bi-directional 24-hour traffic data on Wednesday, February 17, 2021. The recorded daily volumes, truck percentages, and 85<sup>th</sup> percentile speed are shown in Figure 6 below. The ATR data can be found in Appendix C.

Figure 6: ATR DATA



## COVID-19 TRAFFIC VOLUME COMPARISON & ADJUSTMENT

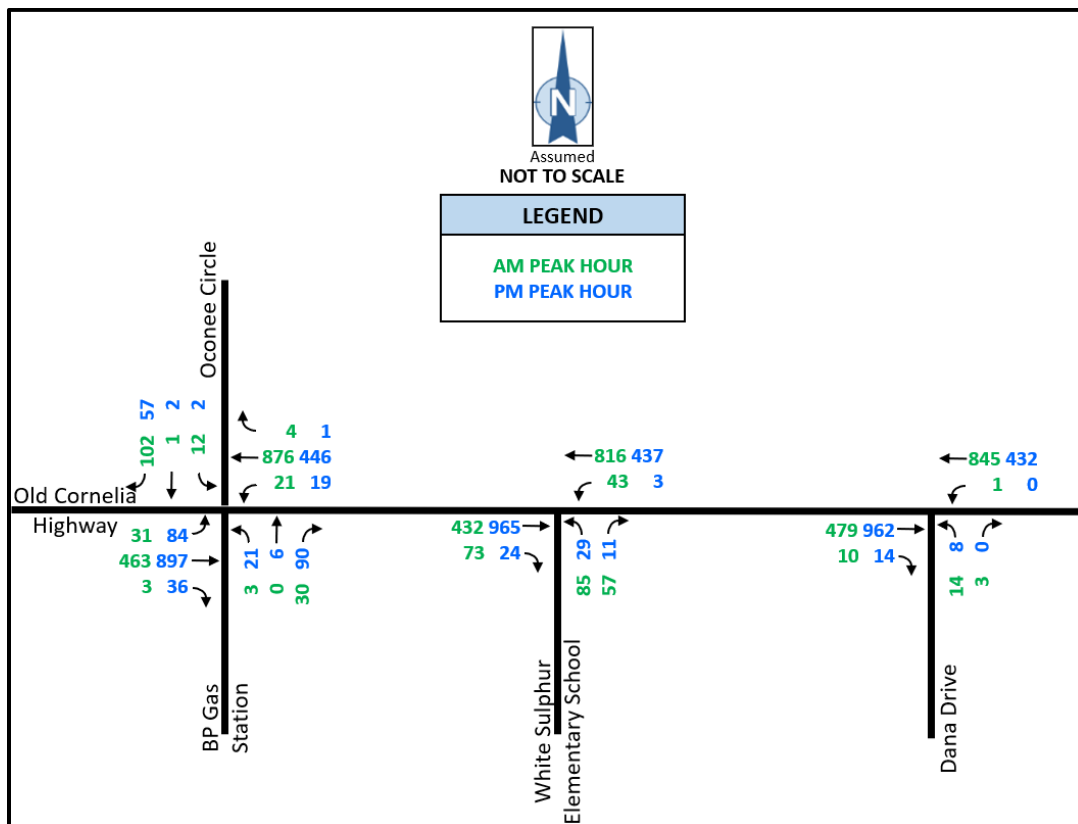
Due to the COVID-19 pandemic, GDOT issued guidance on the collection of Turning Movement Counts (TMC's). One example of guidance provided by the document issued in April 2020 states the following, "prior to collecting counts, the engineer should identify the nearest Continuous Count Station (CCS) or Short-Term count station from GDOT's Traffic Analysis and Data Application (TADA)...Turning movement counts should be factored based on the comparison of data available in TADA ..."

The ATR data was collected on GDOT count station (139-0210) near the proposed development. The raw count data from September 2018 showed a daily volume of 14,113 and a K-factor of 10.9%. After applying a growth rate of 1.5%, the daily volume at the GDOT count station was projected to grow to 14,758 vehicles per day in 2021. A comparison of the daily volume from the projected 2021 count station data and the collected volume from the 2021 ATR data revealed a reduction of 9%. The data found at this count station can be found in Appendix D.

Additionally, the volumes were balanced between intersections, using the high point for the most conservative estimate.

Figure 7 below shows the balanced 2021 TMC volume adjusted for pre-COVID traffic.

**Figure 7: 2021 TRAFFIC VOLUMES (ADJUSTED)**



# SAFETY EVALUATION

## CRASH HISTORY

Crash data was analyzed to identify collision-prone movements at the study intersection. Data was obtained from the Georgia Electronic Accident Reporting System (GEARS) for the five most recent years. Detailed crash data is provided in Appendix E.

Table 2 summarizes the crash frequency at the intersection of Old Cornelia Highway and Dana Drive.

**Table 2: CRASH DATA SUMMARY, OLD CORNELIA HWY @ DANA DR**

| YEAR         | TOTAL CRASHES | INJURY CRASHES/ INJURIES | FATAL -ITIES | COLLISION WITH VEHICLE |          |          |            | COLLISION WITH ANIMAL OR STRUCTURE |
|--------------|---------------|--------------------------|--------------|------------------------|----------|----------|------------|------------------------------------|
|              |               |                          |              | RIGHT-ANGLE            | HEAD ON  | REAR END | SIDE-SWIPE |                                    |
| 2016         | 1             | 1/1                      | 0            | 0                      | 0        | 0        | 0          | 1                                  |
| 2017         | 0             | 0/0                      | 0            | 0                      | 0        | 0        | 0          | 0                                  |
| 2018         | 1             | 0/0                      | 0            | 0                      | 0        | 0        | 0          | 1                                  |
| 2019         | 1             | 0/0                      | 0            | 0                      | 0        | 1        | 0          | 0                                  |
| 2020         | 1             | 0/0                      | 0            | 1                      | 0        | 0        | 0          | 0                                  |
| <b>Total</b> | <b>4</b>      | <b>1/1</b>               | <b>0</b>     | <b>1</b>               | <b>0</b> | <b>1</b> | <b>0</b>   | <b>2</b>                           |

According to the crash history, collisions with an animal or structure were the most prominent type of crash, accounting for 50% of the total collisions in the past five years. No fatalities were reported during this time period.

Table 3 summarizes the crash frequency at the intersection of Old Cornelia Highway and White Sulphur Elementary School.

**Table 3: CRASH DATA SUMMARY, OLD CORNELIA HWY @ WHITE SULPHUR ELEMENTARY SCHOOL**

| YEAR         | TOTAL CRASHES | INJURY CRASHES/ INJURIES | FATAL -ITIES | COLLISION WITH VEHICLE |          |          |            | COLLISION WITH ANIMAL OR STRUCTURE |
|--------------|---------------|--------------------------|--------------|------------------------|----------|----------|------------|------------------------------------|
|              |               |                          |              | RIGHT-ANGLE            | HEAD ON  | REAR END | SIDE-SWIPE |                                    |
| 2016         | 0             | 0/0                      | 0            | 0                      | 0        | 0        | 0          | 0                                  |
| 2017         | 1             | 0/0                      | 0            | 0                      | 0        | 1        | 0          | 0                                  |
| 2018         | 0             | 0/0                      | 0            | 0                      | 0        | 0        | 0          | 0                                  |
| 2019         | 0             | 0/0                      | 0            | 0                      | 0        | 0        | 0          | 0                                  |
| 2020         | 0             | 0/0                      | 0            | 0                      | 0        | 0        | 0          | 0                                  |
| <b>Total</b> | <b>1</b>      | <b>0/0</b>               | <b>0</b>     | <b>0</b>               | <b>0</b> | <b>1</b> | <b>0</b>   | <b>0</b>                           |

According to the crash history, there was a single rear end collision in the past five years. No fatalities were reported during this time period.



Table 4 summarizes the crash frequency at the intersection of Old Cornelia Highway and Oconee Circle.

**Table 4: CRASH DATA SUMMARY, OLD CORNELIA HWY @ OCONEE CIR**

| YEAR         | TOTAL<br>CRASHES | INJURY<br>CRASHES/<br>INJURIES | FATAL<br>-ITIES | COLLISION WITH VEHICLE |            |             |                | COLLISION WITH<br>ANIMAL<br>OR STRUCTURE |
|--------------|------------------|--------------------------------|-----------------|------------------------|------------|-------------|----------------|------------------------------------------|
|              |                  |                                |                 | RIGHT-<br>ANGLE        | HEAD<br>ON | REAR<br>END | SIDE-<br>SWIPE |                                          |
| 2016         | 4                | 1/1                            | 0               | 1                      | 0          | 1           | 0              | 2                                        |
| 2017         | 10               | 2/3                            | 0               | 4                      | 1          | 1           | 2              | 2                                        |
| 2018         | 5                | 0/0                            | 0               | 1                      | 0          | 2           | 2              | 0                                        |
| 2019         | 2                | 1/3                            | 0               | 1                      | 0          | 0           | 1              | 0                                        |
| 2020         | 3                | 1/1                            | 0               | 1                      | 0          | 0           | 1              | 1                                        |
| <b>Total</b> | <b>24</b>        | <b>5/8</b>                     | <b>0</b>        | <b>8</b>               | <b>1</b>   | <b>4</b>    | <b>6</b>       | <b>5</b>                                 |

According to the crash history, right angle collisions were the most prominent type of crash, accounting for 33% of the total collisions in the past five years. No fatalities were reported during this time period.

# TRAFFIC PROJECTION METHODOLOGY

The methodology used to estimate future traffic growth included the examination of Hall County census data and historic trends from the nearby GDOT count stations.

## CENSUS DATA

The census data from the Hall County Strategic Plan developed in 2018 is shown in Table 5. The Strategic Plan is included in Appendix F.

**Table 5: CENSUS DATA: HALL COUNTY STRATEGIC PLAN**

| HALL COUNTY |            |          |                   |
|-------------|------------|----------|-------------------|
| YEAR        | POPULATION | % CHANGE | % CHANGE PER YEAR |
| 2010        | 189,684    | -        | -                 |
| 2040        | 371,570    | 95.9%    | 2.27%             |

Source: Hall County Strategic Plan (2018 – 2028)

The data shows an increase of the population in Hall County of 95.9%, or a yearly rate of 2.27%, between 2010 and 2040.

The most recent Hall County population data from the Atlanta Regional Commission (ARC) was developed in 2015 and is shown in Table 6. The ARC population data is included in Appendix G.

**Table 6: CENSUS DATA: ATLANTA REGIONAL COMMISSION**

| HALL COUNTY |            |          |                   |
|-------------|------------|----------|-------------------|
| YEAR        | POPULATION | % CHANGE | % CHANGE PER YEAR |
| 2015        | 200,586    | -        | -                 |
| 2050        | 289,128    | 44.1%    | 1.05%             |

Source: Atlanta Regional Commission, 2050 Population Forecast: Hall County

According to the ARC data, the population will see an increase of 44.1%, or a yearly rate of 1.05%, between 2015 and 2050.

## HISTORIC TRAFFIC DATA

The GDOT maintains multiple annual traffic count stations in the vicinity of the study area. This data was used to establish historic growth rates in the area. Figure 8 below shows the count stations in the study area.

**Figure 8: NEARBY GDOT COUNT STATIONS**

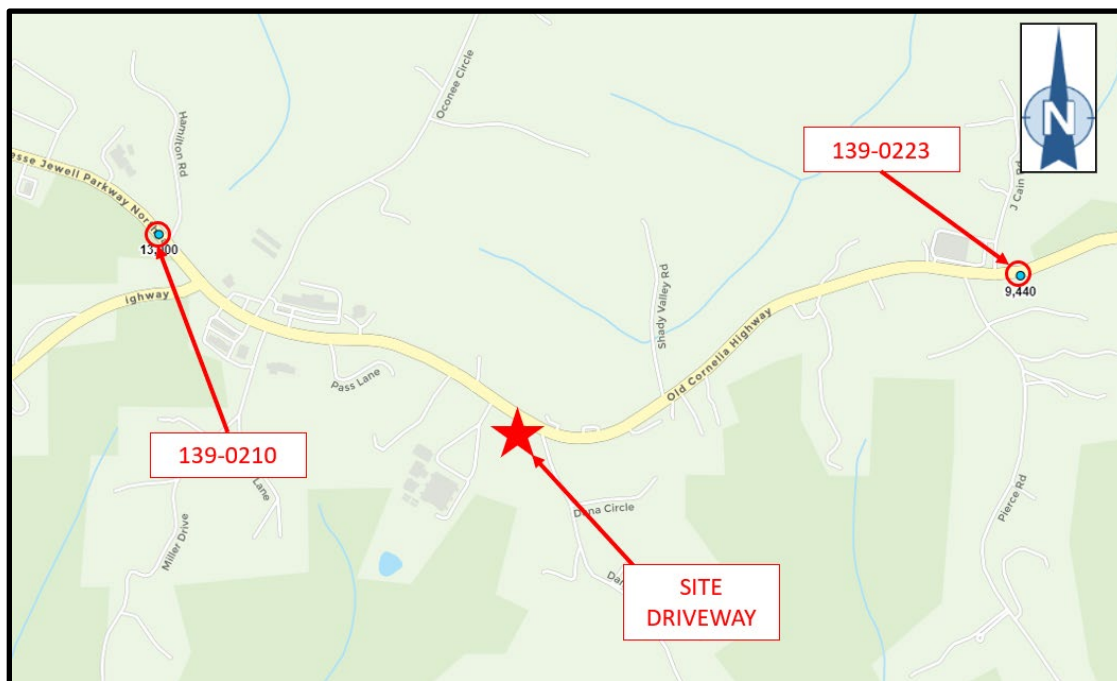


Table 7 summarizes the average annual daily traffic (AADT) reported by the GDOT for each of the years 2010 through 2020. Historic data reported by the GDOT for each of the count stations can be found in Appendix D.

**Table 7: HISTORIC TRAFFIC DATA**

| Year | GDOT Count Station 139-0210 | GDOT Count Station 139-0223 |
|------|-----------------------------|-----------------------------|
| 2010 | *10,900                     | *7,890                      |
| 2011 | *10,600                     | 9,170                       |
| 2012 | 10,964                      | *8,260                      |
| 2013 | *9,620                      | *8,440                      |
| 2014 | *9,620                      | *8,440                      |
| 2015 | *9,940                      | 9,300                       |
| 2016 | 11,184                      | *8,790                      |
| 2017 | *10,800                     | *8,850                      |
| 2018 | 14,113                      | *8,780                      |
| 2019 | *13,000                     | 9,540                       |
| 2020 | 12,442                      | -                           |

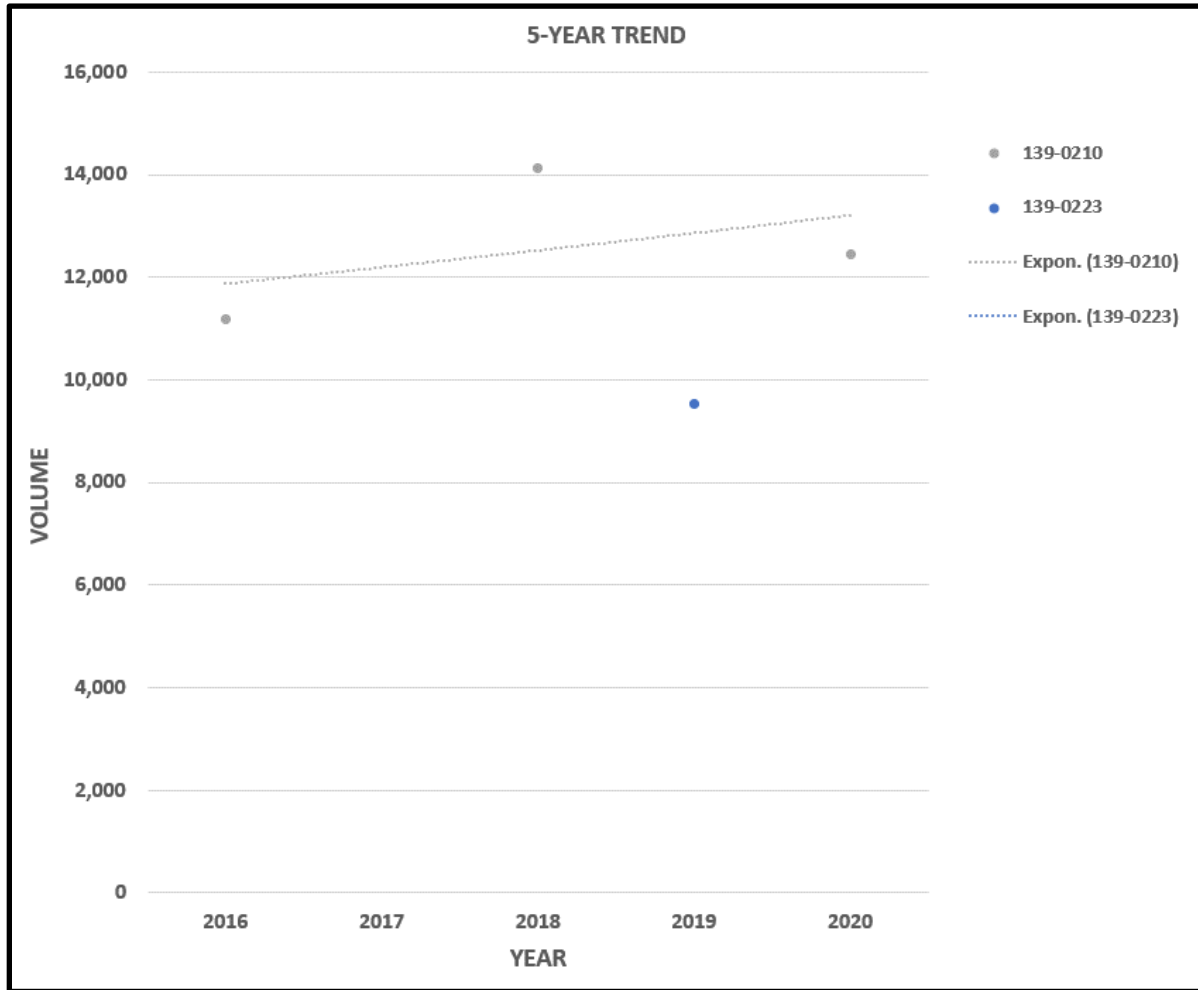
Source: GDOT Traffic Analysis & Data Application

\*Estimated counts not used in trend analysis.

## TREND ANALYSIS

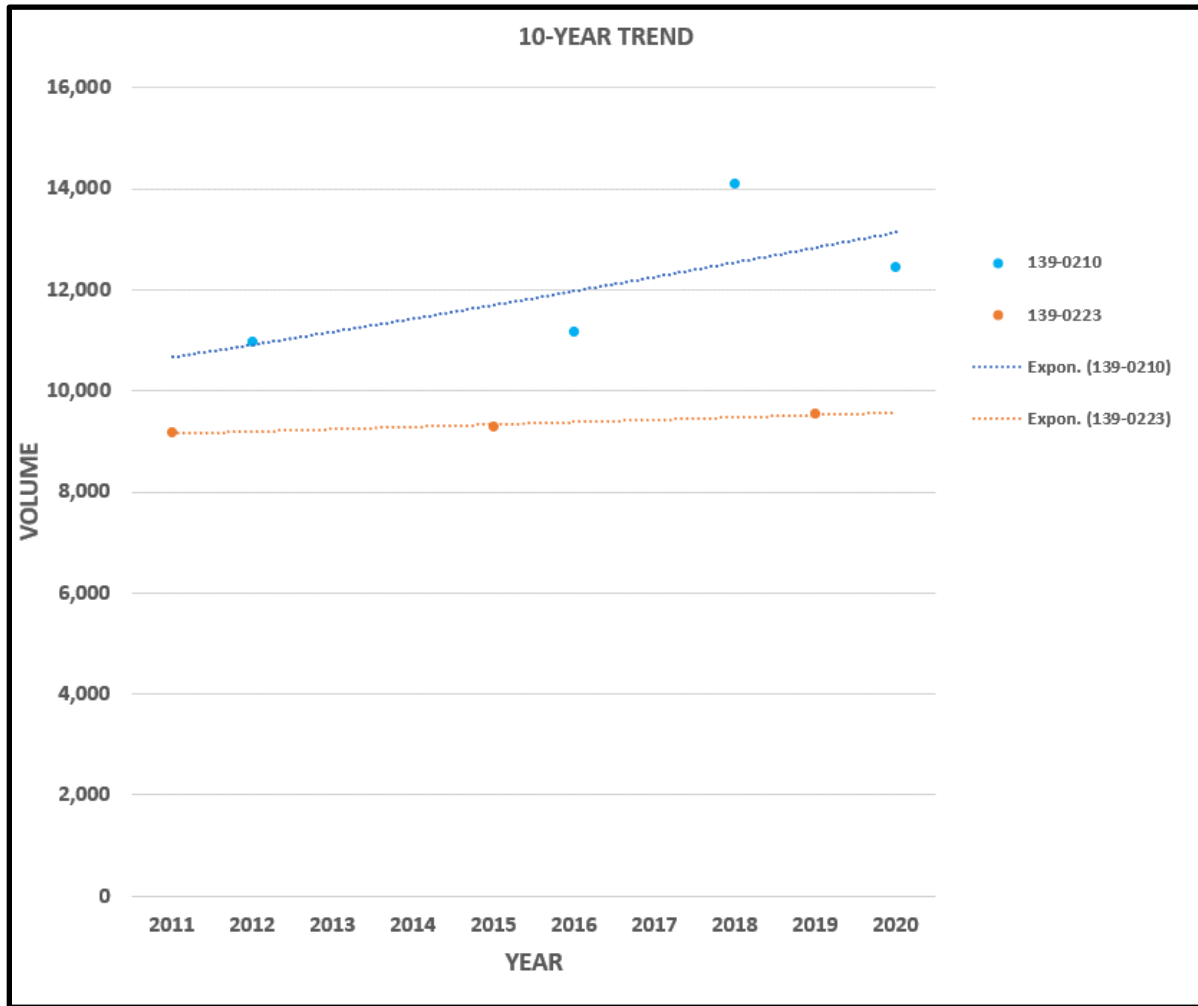
Figures 9 and 10, on the following pages, show graphs of the historic AADT as reported by the GDOT. A trend line is shown for each count station. Gaps in the graphs represent years for which data was estimated, which are not used in the analysis, per GDOT policy.

**Figure 9: 5-YEAR TREND LINES FOR GDOT COUNT STATIONS**





**Figure 10: 10-YEAR TREND LINES FOR GDOT COUNT STATIONS**



Growth rates were developed based on the 5-year and 10-year analyses of count station data shown above. Table 8 shows the resulting trend rates.

**Table 8: TREND ANALYSIS FOR COUNT STATION DATA**

| GDOT Count Stations                     | 5-year | 10-year |
|-----------------------------------------|--------|---------|
| 139-0210                                | 2.15%  | 1.27%   |
| 139-0223                                | 0.00%  | 0.40%   |
| Blended Trend Rates from Count Stations | 1.37%  | 0.95%   |

Note: Rates are calculated based on annual compounding.

## GROWTH RATE

The Hall County Strategic Plan projects an annual population growth rate of 2.27%. The ARC's population forecast for Hall County projects annual population growth rate to be 1.05% for the county. Based on the data available from the nearby GDOT count station, the growth trend was calculated to be 1.37% for the past five years, and 0.95% for the past ten years.

Based on these rates and the surrounding area, the background traffic growth rate was established to be **1.5%** from the Existing year (2021) to the Phase 3 Build year (2035), for the purposes of the study.

## GROWTH FACTOR

A growth factor was established by applying the growth rates to the following equation, shown below:

$$\text{Growth Factor} = (1 + r)^n$$

Where:

**r** = growth rate

**n** = number of years

The volumes projections were calculated using the following values as 'n', taken as the time period between the 2021 Existing year and each corresponding phase.

- Existing Year (2021) to Phase 1 Build Year (2025) – n=4
- Existing Year (2021) to Phase 2 Build Year (2030) – n=9
- Existing Year (2021) to Phase 3 Build Year (2035) – n=14

Growth factors are provided in Table 9.

**Table 9: GROWTH FACTORS**

| PROJECTED YEARS           |                           |                           |
|---------------------------|---------------------------|---------------------------|
| Phase 1 Build Year (2025) | Phase 2 Build Year (2030) | Phase 3 Build Year (2035) |
| 1.06                      | 1.14                      | 1.23                      |

Figures 11 through 13 on the following pages show the estimated No-Build traffic volumes at the study intersections for each Phase (2025, 2030, 2035).

Figure 11: NO-BUILD VOLUMES, 2025

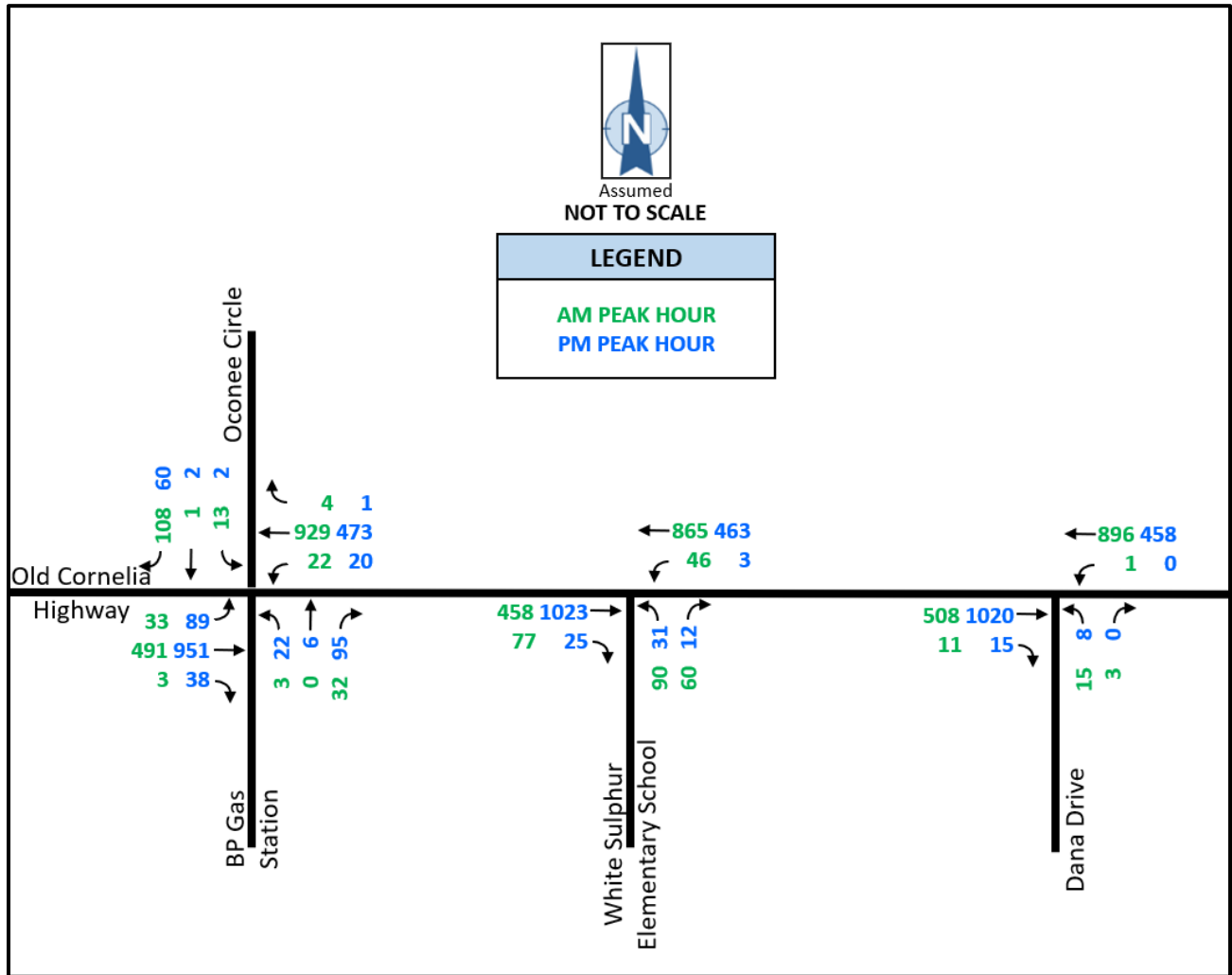


Figure 12: NO-BUILD VOLUMES, 2030

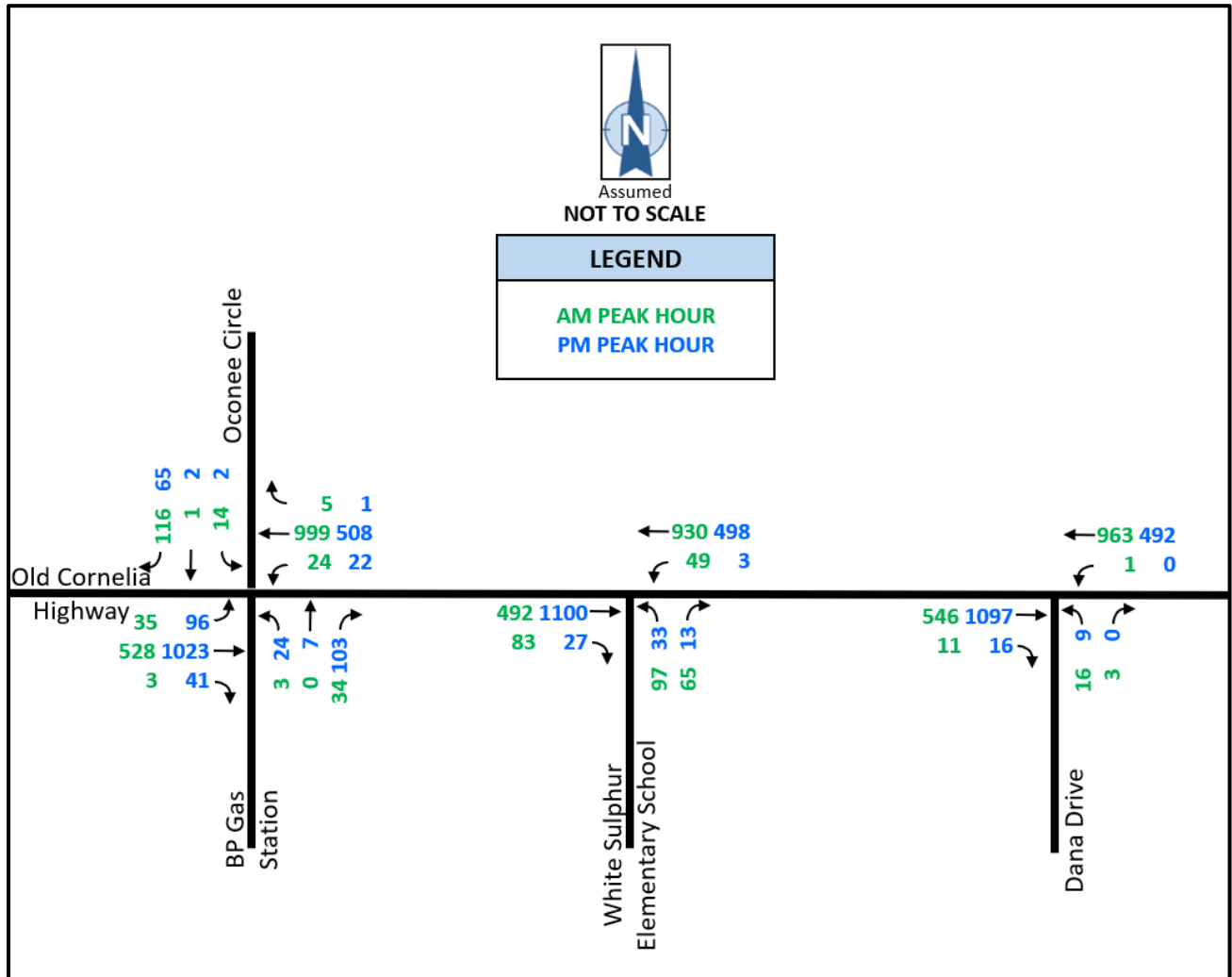
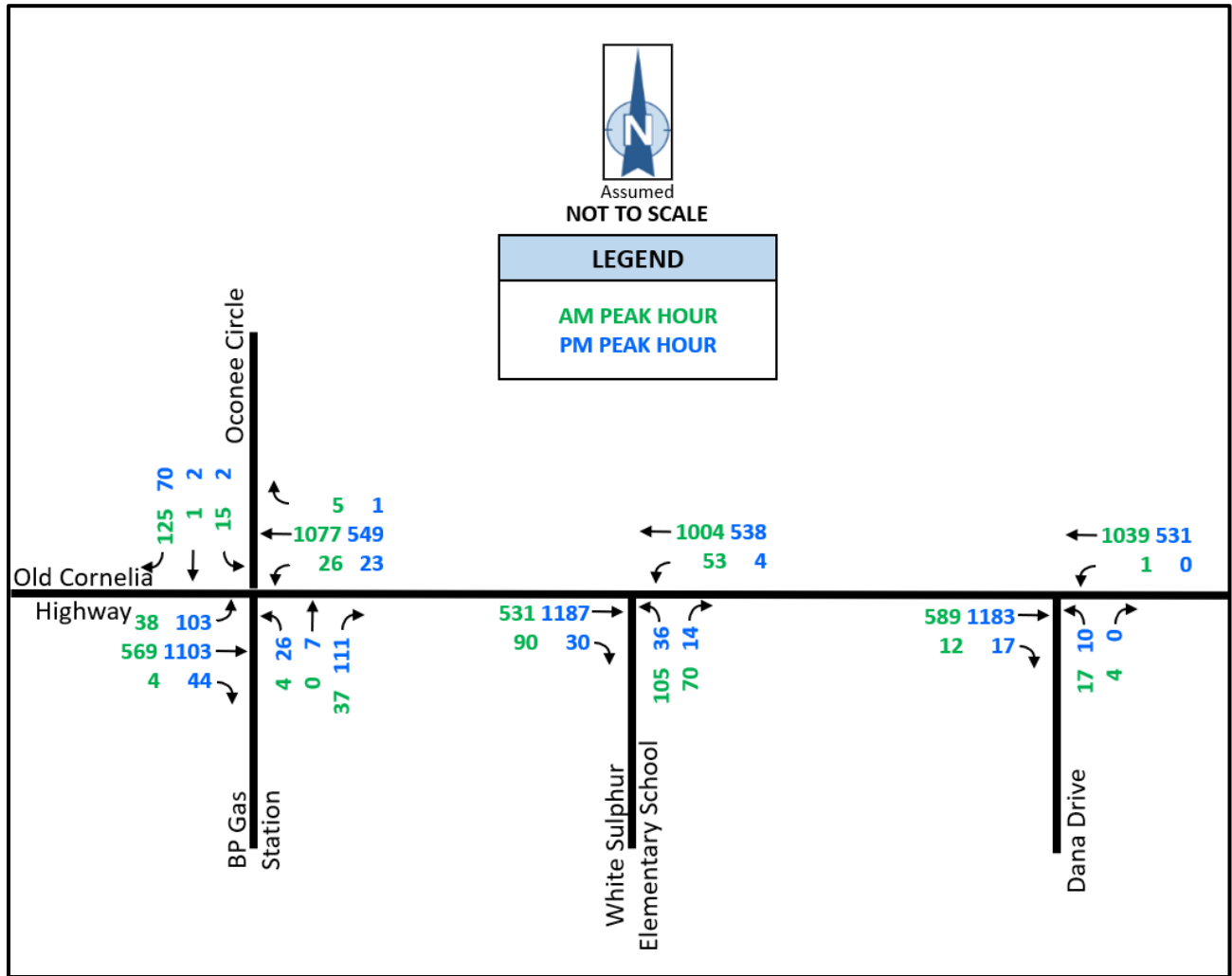




Figure 13: NO-BUILD VOLUMES, 2035



# PROJECTED CONDITIONS

## TRIP GENERATION

The trips generated by the development were estimated using trip generation rates found in ITE's publication *Trip Generation*, 10<sup>th</sup> Edition. *TripGen 10* software from Trafficware was used to facilitate the calculation. The trip generation publication contains multiple associated trip rates for the listed land uses. The rate that resulted in the larger trip generation was used for this study.

The development is scheduled to be constructed at a rate of 160 homes per year, and was evaluated in three phases: Phase 1 (2025), Phase 2 (2030), and Phase 3 (2035). Each phase of the trip generation is cumulative and includes the previous phase.

The weekday AM and PM Peak Hour trip generation estimates correspond to the peak hour of the adjacent street. It was assumed that 50% of the trips generated by the baseball park would be internal capture trips, generated by the residential land uses. Tables 10 through 12 summarizes the trip generation results. The trip generation data is provided in Appendix H.

**Table 10: TRIP GENERATION, PHASE 1 (2025)**

| ITE CODE                         | LAND USE                       | SIZE     | DAILY TRIPS | AM PEAK HOUR |      |       | PM PEAK HOUR |      |       |
|----------------------------------|--------------------------------|----------|-------------|--------------|------|-------|--------------|------|-------|
|                                  |                                |          |             | ENTER        | EXIT | TOTAL | ENTER        | EXIT | TOTAL |
| 210                              | Single Family Detached Housing | 190 DU   | 1,877       | 35           | 106  | 141   | 118          | 70   | 188   |
| 210                              | Single Family Detached Housing | 436 DU   | 4,116       | 81           | 242  | 323   | 272          | 160  | 432   |
| 221                              | Multifamily Housing (Mid-Rise) | 174 DU   | 947         | 16           | 47   | 63    | 47           | 30   | 77    |
| 411                              | Public Park                    | 20 acres | 101         | 0            | 0    | 0     | 13           | 11   | 24    |
| UNADJUSTED VOLUME                |                                |          | 7,041       | 132          | 395  | 527   | 450          | 271  | 721   |
| INTERNAL CAPTURE TRIPS           |                                |          | -50         | -0           | -0   | -0    | -6           | -6   | -12   |
| VOLUME ADDED TO ADJACENT STREETS |                                |          | 6,991       | 132          | 395  | 527   | 444          | 265  | 709   |

**Table 11: TRIP GENERATION, PHASE 2 (2030)**

| ITE CODE                         | LAND USE                       | SIZE     | DAILY TRIPS | AM PEAK HOUR |      |       | PM PEAK HOUR |      |       |
|----------------------------------|--------------------------------|----------|-------------|--------------|------|-------|--------------|------|-------|
|                                  |                                |          |             | ENTER        | EXIT | TOTAL | ENTER        | EXIT | TOTAL |
| 210                              | Single Family Detached Housing | 190 DU   | 1,877       | 35           | 106  | 141   | 118          | 70   | 188   |
| 210                              | Single Family Detached Housing | 486 DU   | 4,588       | 90           | 270  | 360   | 303          | 178  | 481   |
| 221                              | Multifamily Housing (Mid-Rise) | 924 DU   | 5,034       | 87           | 246  | 333   | 248          | 159  | 407   |
| 411                              | Public Park                    | 20 acres | 101         | 0            | 0    | 0     | 13           | 11   | 24    |
| UNADJUSTED VOLUME                |                                |          | 11,600      | 212          | 622  | 834   | 682          | 418  | 1,100 |
| INTERNAL CAPTURE TRIPS           |                                |          | -50         | -0           | -0   | -0    | -6           | -6   | -12   |
| VOLUME ADDED TO ADJACENT STREETS |                                |          | 11,550      | 212          | 622  | 834   | 676          | 412  | 1,088 |

**Table 12: TRIP GENERATION, PHASE 3 (2035)**

| ITE CODE                                | LAND USE                       | SIZE     | DAILY TRIPS | AM PEAK HOUR |       |       | PM PEAK HOUR |      |       |
|-----------------------------------------|--------------------------------|----------|-------------|--------------|-------|-------|--------------|------|-------|
|                                         |                                |          |             | ENTER        | EXIT  | TOTAL | ENTER        | EXIT | TOTAL |
| 210                                     | Single Family Detached Housing | 190 DU   | 1,877       | 35           | 106   | 141   | 118          | 70   | 188   |
| 210                                     | Single Family Detached Housing | 1,226 DU | 11,573      | 227          | 680   | 907   | 765          | 449  | 1,214 |
| 221                                     | Multifamily Housing (Mid-Rise) | 924 DU   | 5,034       | 87           | 246   | 333   | 248          | 159  | 407   |
| 411                                     | Public Park                    | 20 acres | 101         | 0            | 0     | 0     | 13           | 11   | 24    |
| <b>UNADJUSTED VOLUME</b>                |                                |          | 18,585      | 349          | 1,032 | 1,381 | 1,144        | 689  | 1,833 |
| <b>INTERNAL CAPTURE TRIPS</b>           |                                |          | -50         | -0           | -0    | -0    | -6           | -6   | -12   |
| <b>VOLUME ADDED TO ADJACENT STREETS</b> |                                |          | 18,535      | 349          | 1,032 | 1,381 | 1,138        | 683  | 1,821 |

The development is proposed to have a main driveway on Old Cornelia Highway between White Sulphur Elementary School and Dana Drive, with additional driveways added to the development in 2030 and 2035, respectively. The following assumptions were made for each build phase:

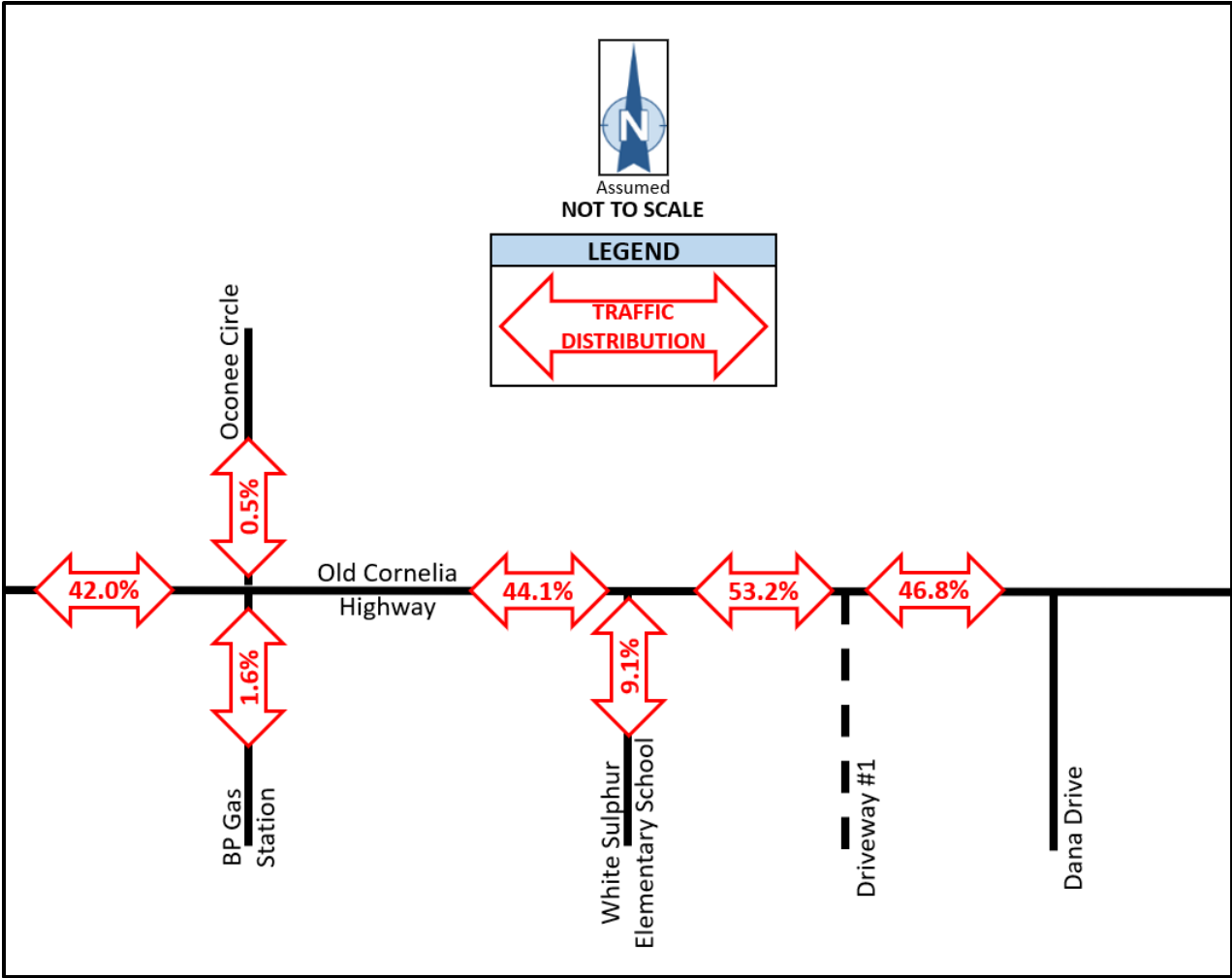
- **Phase 1 (2025)** - 100% of the trips would use the main driveway.
- **Phase 2 (2030)** – 80% of the trips would use the main driveway, and the remaining trips would use the secondary access point on Old Cornelia Highway.
- **Phase 3 (2035)** – 60% of the trips would use the main driveway, and the remaining trips would use the other access points on Old Cornelia Highway and Floyd Road.

TRIP DISTRIBUTION

In order to develop a distribution pattern for residential trips, the TMC data of the study area was analyzed and used to determine the percentage of traffic passing the proposed residential driveways for the new trips. The trip distribution percentages were based on the AM traffic pattern.

Figure 14 below shows the resulting trip distribution pattern that was used to assign the new generated traffic for the residential land uses.

Figure 14: TRIP DISTRIBUTION PATTERN





## TRAFFIC ASSIGNMENT

Tables 13 through 15 shows how the distributed trips are expected to enter and exit the development for each phase, according to the direction traveled.

**Table 13: NEW TRIPS ASSIGNMENT, PHASE 1 (2025)**

| To & From                       | %           | AM         |            | PM         |            |
|---------------------------------|-------------|------------|------------|------------|------------|
|                                 |             | IN         | OUT        | IN         | OUT        |
| Old Cornelia Highway West       | 42.0%       | 55         | 166        | 187        | 111        |
| BP Gas Station                  | 1.6%        | 2          | 6          | 7          | 4          |
| Oconee Circle                   | 0.5%        | 1          | 2          | 2          | 2          |
| White Sulphur Elementary School | 9.1%        | 12         | 36         | 40         | 24         |
| Old Cornelia Highway East       | 46.8%       | 62         | 185        | 208        | 124        |
| <b>Total Trips</b>              | <b>100%</b> | <b>132</b> | <b>395</b> | <b>444</b> | <b>265</b> |

**Table 14: NEW TRIPS ASSIGNMENT, PHASE 2 (2030)**

| To & From                       | %           | AM         |            | PM         |            |
|---------------------------------|-------------|------------|------------|------------|------------|
|                                 |             | IN         | OUT        | IN         | OUT        |
| Old Cornelia Highway West       | 42.0%       | 71         | 209        | 227        | 139        |
| BP Gas Station                  | 1.6%        | 3          | 8          | 9          | 5          |
| Oconee Circle                   | 0.5%        | 1          | 3          | 3          | 2          |
| White Sulphur Elementary School | 9.1%        | 15         | 45         | 49         | 30         |
| Old Cornelia Highway East       | 46.8%       | 80         | 233        | 253        | 154        |
| <b>Total Trips</b>              | <b>100%</b> | <b>170</b> | <b>498</b> | <b>541</b> | <b>330</b> |

**Table 15: NEW TRIPS ASSIGNMENT, PHASE 3 (2035)**

| To & From                       | %           | AM         |            | PM         |            |
|---------------------------------|-------------|------------|------------|------------|------------|
|                                 |             | IN         | OUT        | IN         | OUT        |
| Old Cornelia Highway West       | 42.0%       | 88         | 260        | 287        | 172        |
| BP Gas Station                  | 1.6%        | 3          | 10         | 11         | 7          |
| Oconee Circle                   | 0.5%        | 1          | 3          | 3          | 2          |
| White Sulphur Elementary School | 9.1%        | 19         | 56         | 62         | 37         |
| Old Cornelia Highway East       | 46.8%       | 98         | 290        | 320        | 192        |
| <b>Total Trips</b>              | <b>100%</b> | <b>209</b> | <b>619</b> | <b>683</b> | <b>410</b> |

## New Trips

The new trips generated by the development for each phase are shown in Figures 15 through 17 on the following pages. These trips are based on the assumptions from the traffic assignment.

**Figure 15: NEW TRIPS, PHASE 1 (2025)**

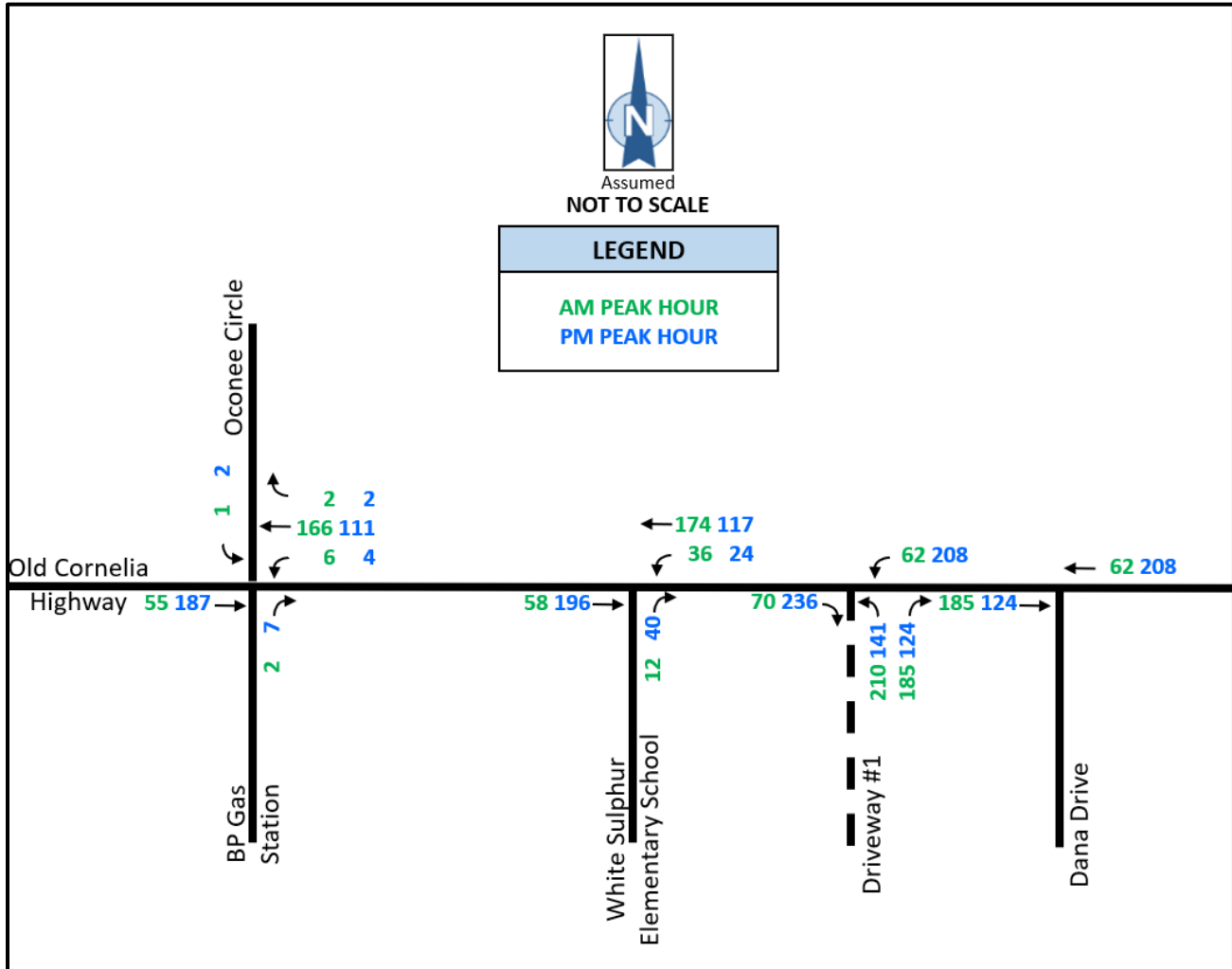


Figure 16: NEW TRIPS, PHASE 2 (2030)

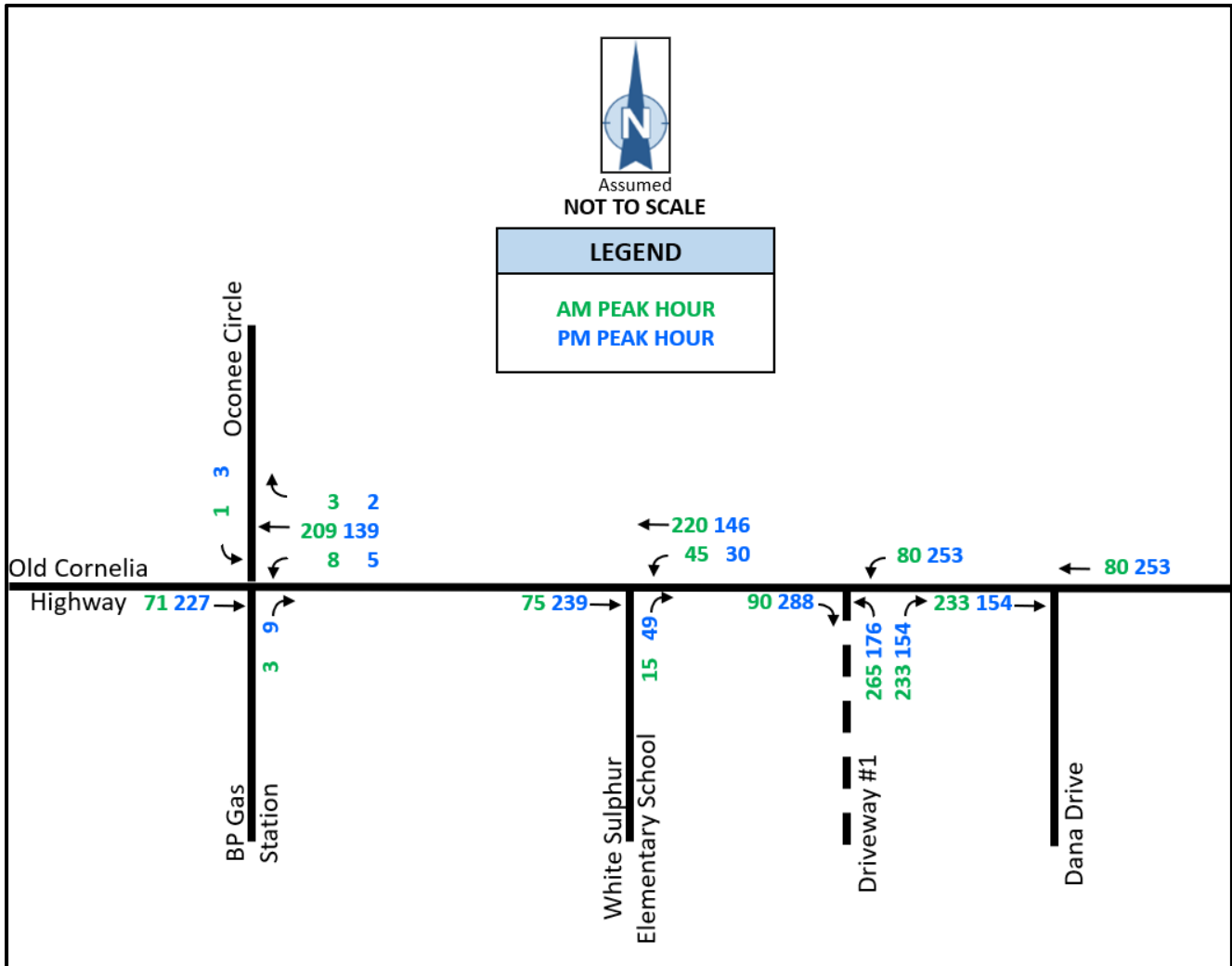
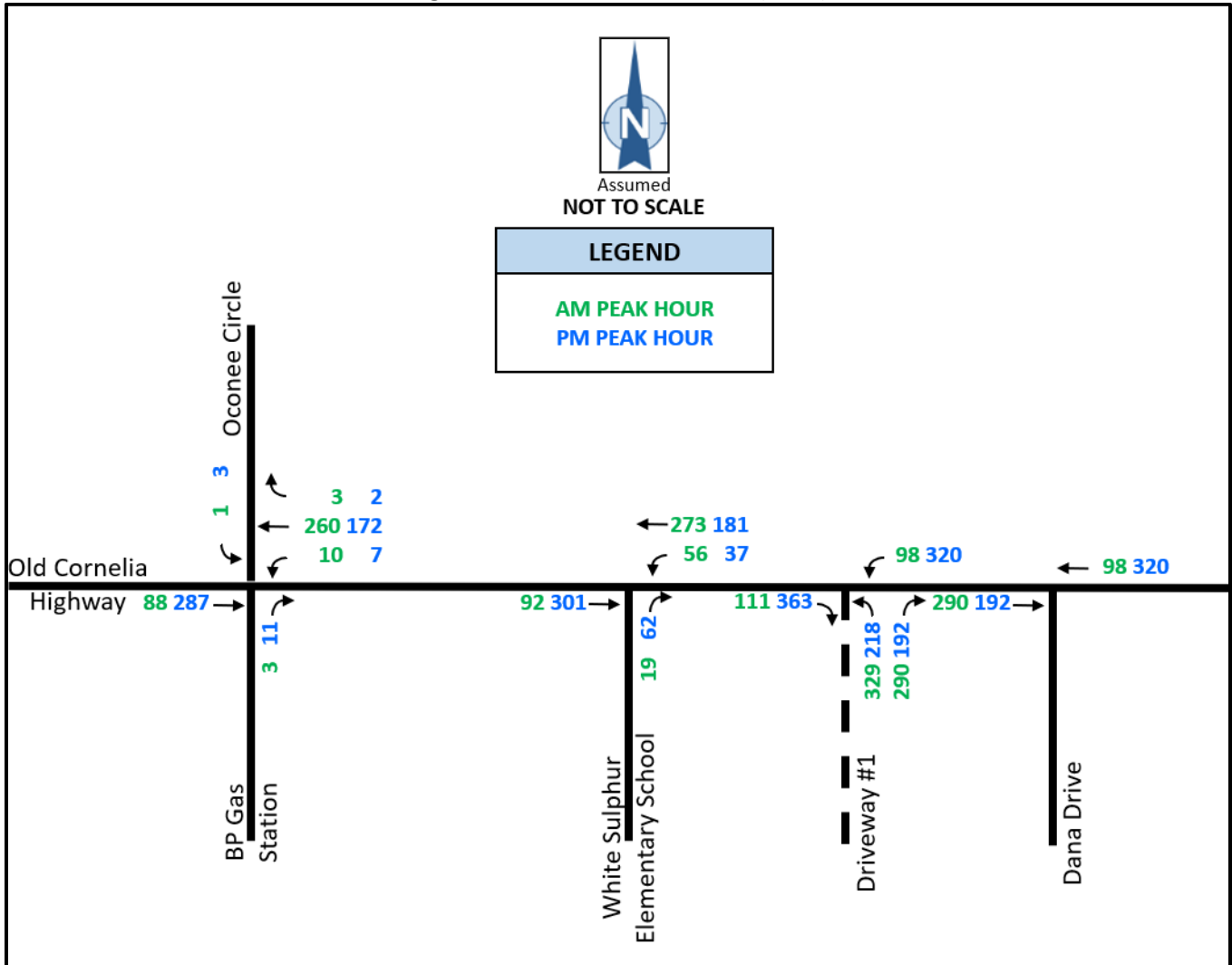


Figure 17: NEW TRIPS, PHASE 3 (2035)





## Total Peak Hour Traffic Volumes

The Total Peak Hour Traffic Volumes for each phase are derived by combining the New Trips (Figures 15 through 17) with the No-Build Volumes (Figures 11 through 13). The Projected 2025 Peak Hour Traffic Volumes are shown below in Figure 18, and the Projected 2030 and 2035 Peak Hour Traffic Volumes are shown on the following pages in Figure 19 and 20.

**Figure 18: TOTAL PEAK HOUR TRAFFIC VOLUMES, PHASE 1 (2025)**

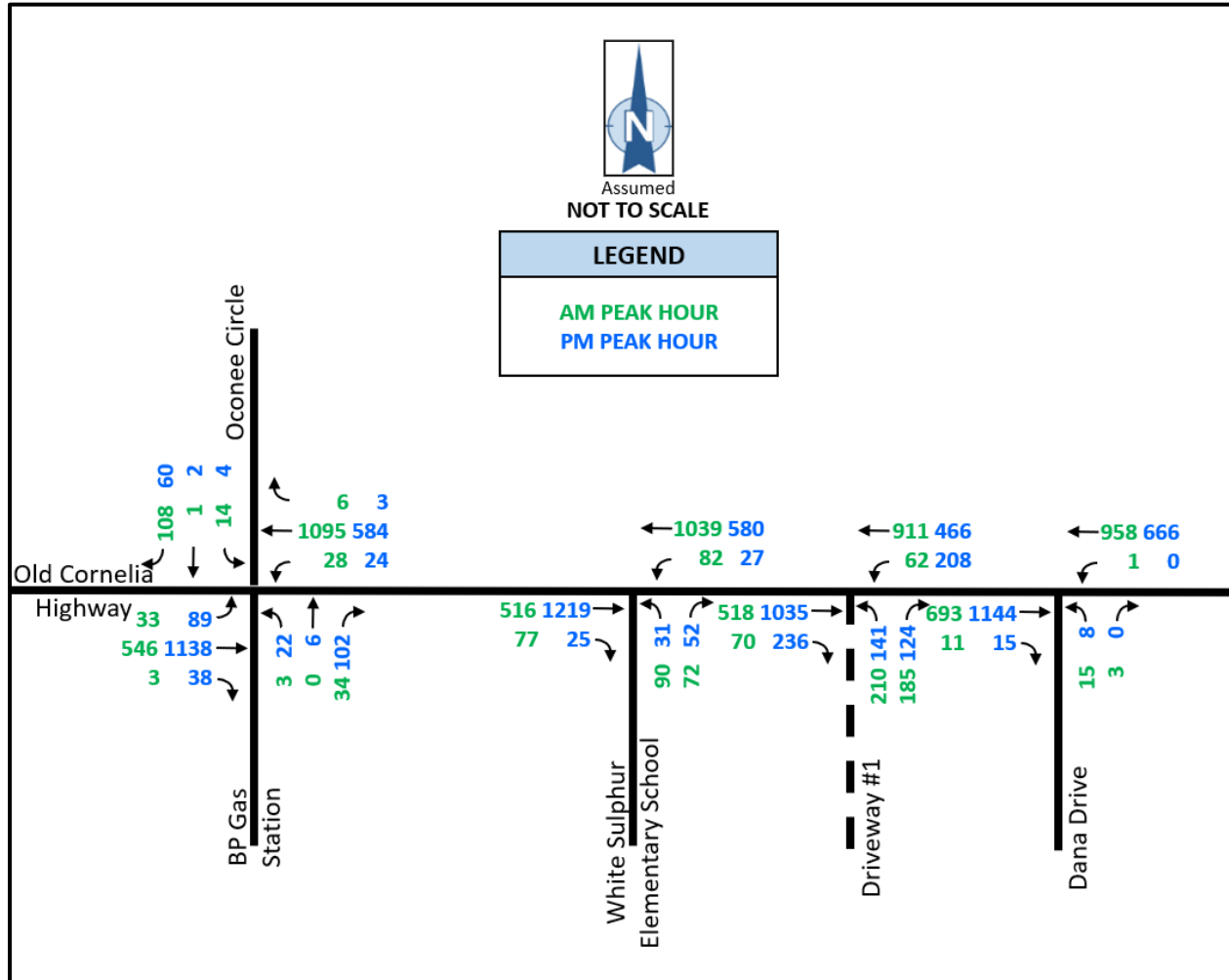


Figure 19: TOTAL PEAK HOUR TRAFFIC VOLUMES, PHASE 2 (2030)

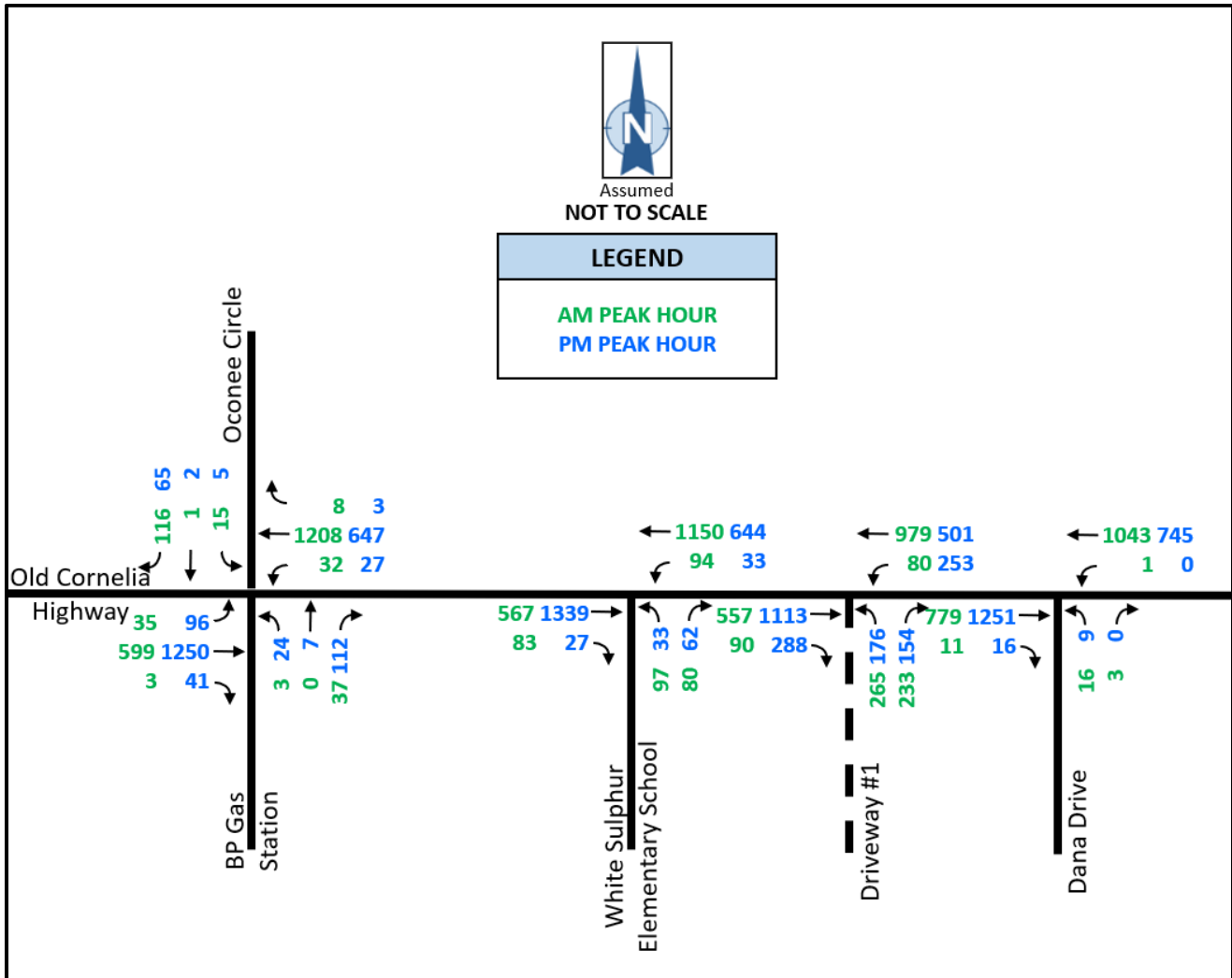
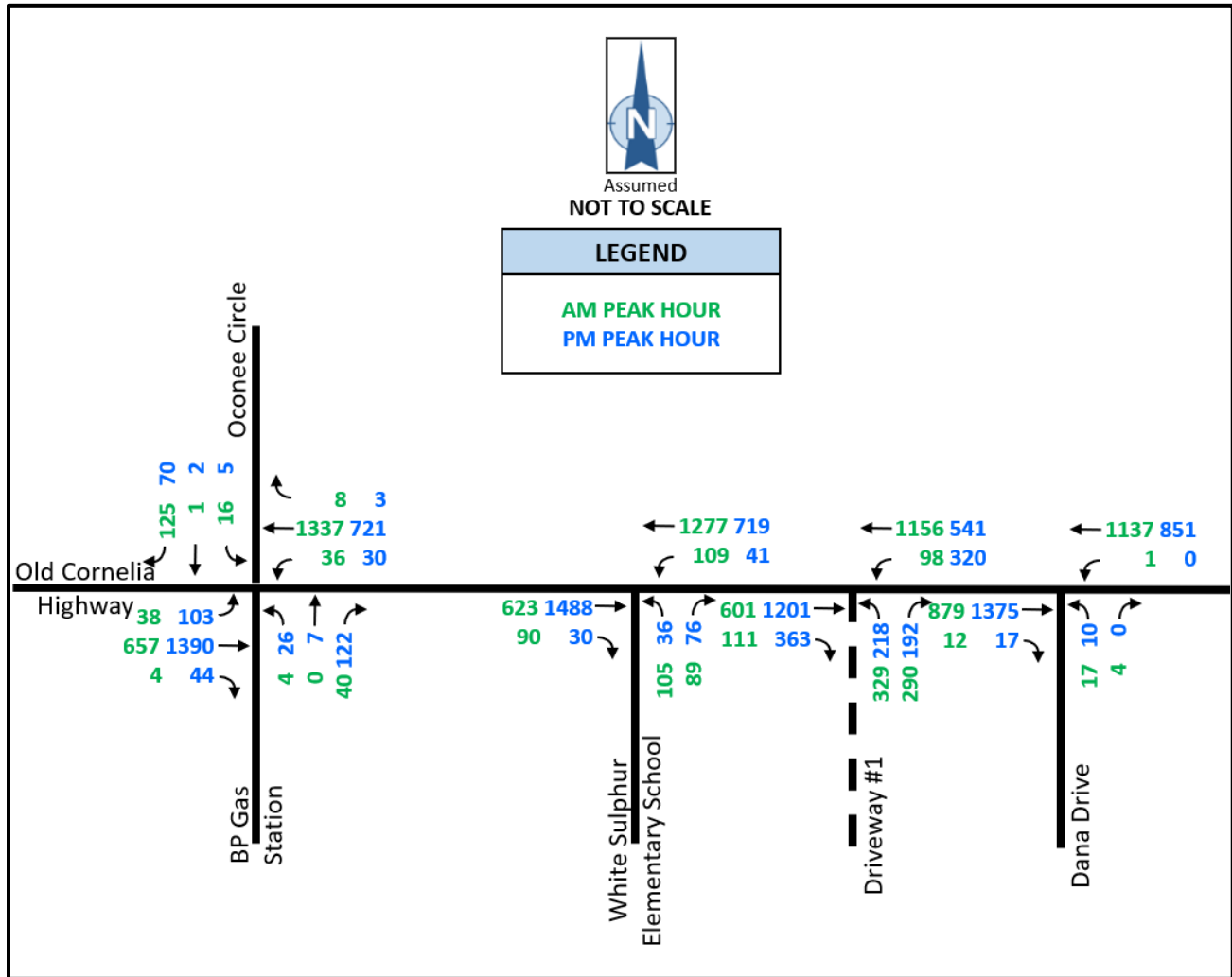


Figure 20: TOTAL PEAK HOUR TRAFFIC VOLUMES, PHASE 3 (2035)



## CAPACITY ANALYSIS

Existing and projected conditions were evaluated using capacity analysis techniques described in the *Highway Capacity Manual, Special Report 209*, published by the Transportation Research Board, 2016. *Synchro 10* from Trafficware was used to facilitate the analysis. HCM level-of-service (LOS) definitions are shown in Table 16. The target LOS at the study intersection is ‘D’ or better.

**Table 16: LEVEL OF SERVICE CRITERIA**

| LEVEL OF SERVICE | DELAY PER VEHICLE (SECONDS) |                            |
|------------------|-----------------------------|----------------------------|
|                  | SIGNALIZED INTERSECTIONS    | UNSIGNALIZED INTERSECTIONS |
| A                | ≤10.0                       | ≤10.0                      |
| B                | 10.1 to 20.0                | 10.1 to 15.0               |
| C                | 20.1 to 35.0                | 15.1 to 25.0               |
| D                | 35.1 to 55.0                | 25.1 to 35.0               |
| E                | 55.1 to 79.9                | 35.1 to 49.9               |
| F                | >80.0                       | >50.0                      |

Source: Highway Capacity Manual, Special Report 209, Transportation Research Board, 2016

## EXISTING CONDITIONS

The intersections included in the study were first evaluated using the existing geometry and volumes. The results of the capacity analysis for the intersections are summarized in Table 17. For each condition, the level of service is shown, followed parenthetically by the average delay per vehicle, in seconds. The capacity analysis reports for the intersections under existing conditions are provided in Appendix I.

**Table 17: CAPACITY ANALYSIS RESULTS - EXISTING CONDITIONS**

| INTERSECTION                                       | MOVEMENT | EXISTING YEAR (2021) |                 |
|----------------------------------------------------|----------|----------------------|-----------------|
|                                                    |          | AM PEAK HOUR         | PM PEAK HOUR    |
| Old Cornelia Hwy @ Dana Dr                         | EBT/R    | -                    | -               |
|                                                    | WBL/T    | A (8.4)              | -               |
|                                                    | NBL/R    | D (29.2)             | <b>E (38.6)</b> |
| Old Cornelia Hwy @ White Sulphur Elementary School | EBT      | -                    | -               |
|                                                    | EBR      | -                    | -               |
|                                                    | WBL      | A (8.9)              | B (10.5)        |
|                                                    | WBT      | -                    | -               |
|                                                    | NBL/R    | <b>F (161.5)</b>     | <b>E (38.2)</b> |
| Old Cornelia Hwy @ Oconee Cir                      | EBL      | B (10.3)             | A (8.8)         |
|                                                    | EBT      | -                    | -               |
|                                                    | EBR      | -                    | -               |
|                                                    | WBL      | A (8.6)              | B (10.7)        |
|                                                    | WBT/R    | -                    | -               |
|                                                    | NBL/T/R  | C (18.7)             | <b>F (95.1)</b> |
|                                                    | SBL/T/R  | D (32.5)             | C (15.9)        |

Capacity results indicate that the following intersections are experiencing unacceptable operation under existing conditions:

- Old Cornelia Highway and Dana Drive, which currently operates at LOS ‘E’ on the northbound approach in the PM Peak Hour.
- Old Cornelia Highway and White Sulphur Elementary School, which currently operates at LOS ‘E’ or worse on the northbound approach in both peak hours.
- Old Cornelia Highway and Oconee Circle, which currently operates at LOS ‘F’ on the northbound approach in the PM Peak Hour.



## PROJECTED NO-BUILD CONDITIONS

The projected No-Build conditions include the existing geometry and the background growth volumes without the new trips generated from the development. The capacity analysis results for each of the study intersections under projected No-Build conditions for each Phase (2025, 2030, and 2035) are provided in Table 18 below. The capacity analysis reports for the intersections under projected No-Build conditions can be found in Appendix J.

**Table 18: CAPACITY ANALYSIS RESULTS – NO-BUILD CONDITIONS**

| INTERSECTION                                       | MOVEMENT | PHASE 1 (2025)   |                  | PHASE 2 (2030)   |                  | PHASE 3 (2035)   |                  |
|----------------------------------------------------|----------|------------------|------------------|------------------|------------------|------------------|------------------|
|                                                    |          | AM PEAK HOUR     | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     |
| Old Cornelia Hwy @ Dana Dr                         | EBT/R    | -                | -                | -                | -                | -                | -                |
|                                                    | WBL/T    | A (8.5)          | -                | A (8.7)          | -                | A (8.8)          | -                |
|                                                    | NBL/R    | D (33.2)         | <b>E (44.1)</b>  | <b>E (39.4)</b>  | <b>F (52.9)</b>  | <b>E (47.1)</b>  | <b>F (66.9)</b>  |
| Old Cornelia Hwy @ White Sulphur Elementary School | EBT      | -                | -                | -                | -                | -                | -                |
|                                                    | EBR      | -                | -                | -                | -                | -                | -                |
|                                                    | WBL      | A (9.1)          | B (10.8)         | A (9.3)          | B (11.3)         | A (9.5)          | B (11.9)         |
|                                                    | WBT      | -                | -                | -                | -                | -                | -                |
|                                                    | NBL/R    | <b>F (251.4)</b> | <b>E (45.2)</b>  | <b>F (420.4)</b> | <b>F (58.5)</b>  | <b>F (688.1)</b> | <b>F (86.1)</b>  |
| Old Cornelia Hwy @ Ocone Cir                       | EBL      | B (10.6)         | A (8.9)          | B (11.1)         | A (9.1)          | B (11.6)         | A (9.3)          |
|                                                    | EBT      | -                | -                | -                | -                | -                | -                |
|                                                    | EBR      | -                | -                | -                | -                | -                | -                |
|                                                    | WBL      | A (8.7)          | B (11.0)         | A (8.8)          | B (11.5)         | A (9.0)          | B (12.1)         |
|                                                    | WBT/R    | -                | -                | -                | -                | -                | -                |
|                                                    | NBL/T/R  | C (21.7)         | <b>F (157.9)</b> | D (27.5)         | <b>F (334.3)</b> | <b>F (56.9)</b>  | <b>F (619.0)</b> |
|                                                    | SBL/T/R  | <b>E (40.6)</b>  | C (17.0)         | <b>F (57.9)</b>  | C (18.8)         | <b>F (96.0)</b>  | C (21.6)         |

Capacity results indicate that the following intersections are projected to experience unacceptable operation under No-Build conditions:

- Phase 1 (2025):
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'E' on the northbound approach in the PM Peak Hour.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'E' on the northbound approach in the PM Peak Hour and LOS 'F' in the AM Peak Hour.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'E' on the southbound approach in the AM Peak Hour and at LOS 'F' on the northbound approach in the PM Peak Hour.
- Phase 2 (2030):
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'E' on the northbound approach in the AM Peak Hour and LOS 'F' in the PM Peak Hour.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'F' on the northbound approach in both peak hours.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'F' on the southbound approach in the AM Peak Hour and at LOS 'F' on the northbound approach in the PM Peak Hour.
- Phase 3 (2035):
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'E' on the northbound approach in the AM Peak Hour and LOS 'F' in the PM Peak Hour.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'F' on the northbound approach in both peak hours.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'F' on the southbound approach in the AM Peak Hour and at LOS 'F' on the northbound approach in both peak hours.

## PROJECTED BUILD CONDITIONS

The projected Build conditions include the existing geometry and the Total Peak Hour Traffic Volumes, which includes the background growth and new trips generated by the development. The capacity analysis results for each of the study intersections under projected Build conditions are provided in Table 19. The capacity analysis reports for the intersections under projected Build conditions can be found in Appendix K.

**Table 19: CAPACITY ANALYSIS RESULTS – BUILD CONDITIONS**

| INTERSECTION                                       | MOVEMENT | PHASE 1 (2025)   |                  | PHASE 2 (2030)   |                  | PHASE 3 (2035)   |                  |
|----------------------------------------------------|----------|------------------|------------------|------------------|------------------|------------------|------------------|
|                                                    |          | AM PEAK HOUR     | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     |
| Old Cornelia Hwy @ Dana Dr                         | EBT/R    | -                | -                | -                | -                | -                | -                |
|                                                    | WBL/T    | A (9.2)          | -                | A (9.6)          | -                | B (10.0)         | -                |
|                                                    | NBL/R    | <b>E (48.5)</b>  | <b>F (76.6)</b>  | <b>F (67.0)</b>  | <b>F (109.4)</b> | <b>F (100.3)</b> | <b>F (183.5)</b> |
| Old Cornelia Hwy @ White Sulphur Elementary School | EBT      | -                | -                | -                | -                | -                | -                |
|                                                    | EBR      | -                | -                | -                | -                | -                | -                |
|                                                    | WBL      | A (9.6)          | B (12.4)         | B (10.0)         | B (13.5)         | B (10.6)         | C (15.2)         |
|                                                    | WBT      | -                | -                | -                | -                | -                | -                |
|                                                    | NBL/R    | <b>F (711.0)</b> | <b>F (121.7)</b> | <b>F (*)</b>     | <b>F (261.8)</b> | <b>F (*)</b>     | <b>F (609.3)</b> |
| Old Cornelia Hwy @ Ocone Cir                       | EBL      | B (11.7)         | A (9.4)          | B (12.5)         | A (9.8)          | B (13.7)         | B (10.2)         |
|                                                    | EBT      | -                | -                | -                | -                | -                | -                |
|                                                    | EBR      | -                | -                | -                | -                | -                | -                |
|                                                    | WBL      | A (8.9)          | B (12.4)         | A (9.2)          | B (13.4)         | A (9.4)          | B (14.9)         |
|                                                    | WBT/R    | -                | -                | -                | -                | -                | -                |
|                                                    | NBL/T/R  | <b>E (35.9)</b>  | <b>F (532.3)</b> | <b>F (75.0)</b>  | <b>F (*)</b>     | <b>F (993.8)</b> | <b>F (*)</b>     |
|                                                    | SBL/T/R  | <b>F (82.5)</b>  | D (27.6)         | <b>F (163.8)</b> | <b>E (46.1)</b>  | <b>F (335.5)</b> | <b>F (113.4)</b> |
| Old Cornelia Hwy @ Driveway #1                     | EBT/R    | -                | -                | -                | -                | -                | -                |
|                                                    | WBL/T    | A (9.1)          | C (18.2)         | A (9.5)          | D (26.1)         | A (9.9)          | <b>F (64.3)</b>  |
|                                                    | NBL/R    | <b>F (*)</b>     | <b>F (*)</b>     | <b>F (*)</b>     | <b>F (*)</b>     | <b>F (*)</b>     | <b>F (*)</b>     |

Capacity results indicate that the following intersections are projected to experience unacceptable operation under Build conditions:

- Phase 1 (2025):
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS ‘E’ on the northbound approach in the AM Peak Hour and LOS ‘F’ in the PM Peak Hour.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS ‘F’ on the northbound approach in both peak hours.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS ‘F’ on the southbound approach in the AM Peak Hour and at LOS ‘E’ or worse on the northbound approach in both peak hours.
  - Old Cornelia Highway and Driveway #1, which is projected to operate at LOS ‘F’ on the northbound approach in both peak hours.
- Phase 2 (2030):
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS ‘F’ on the northbound approach in both peak hours.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS ‘F’ on the northbound approach in both peak hours.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS ‘E’ or worse on the southbound approach in both peak hours and at LOS ‘F’ on the northbound approach in both peak hours.
  - Old Cornelia Highway and Driveway #1, which is projected to operate at LOS ‘F’ on the northbound approach in both peak hours.
- Phase 3 (2035):
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS ‘F’ on the northbound approach in both peak hours.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS ‘F’ on the northbound approach in both peak hours.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS ‘F’ on the southbound approach in both peak hours and at LOS ‘F’ on the northbound approach in both peak hours.
  - Old Cornelia Highway and Driveway #1, which is projected to operate at LOS ‘F’ on the northbound approach in both peak hours and at LOS ‘F’ on the westbound approach in the PM Peak Hour.

## PROJECTED CONDITIONS WITH WIDENING

A long range widening project on Old Cornelia Highway is scheduled to begin construction after the completion of Phase 3 (2035) of the development. In order to evaluate potential improvements to the study area, the No-Build and Build condition volumes were evaluated for all three phases with Old Cornelia Highway widened to four lanes.

The capacity analysis results for each of the study intersections under projected No-Build conditions with widening on Old Cornelia Road are provided in Table 20. The capacity analysis reports for the intersections under projected No-Build and Build conditions with the widening project can be found in Appendix L.

**Table 20: CAPACITY ANALYSIS RESULTS – NO-BUILD CONDITIONS WITH WIDENING**

| INTERSECTION                                       | MOVEMENT | PHASE 1 (2025)  |                 | PHASE 2 (2030)  |                  | PHASE 3 (2035)   |                  |
|----------------------------------------------------|----------|-----------------|-----------------|-----------------|------------------|------------------|------------------|
|                                                    |          | AM PEAK HOUR    | PM PEAK HOUR    | AM PEAK HOUR    | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     |
| Old Cornelia Hwy @ Dana Dr                         | EBT      | -               | -               | -               | -                | -                | -                |
|                                                    | EBT/R    | -               | -               | -               | -                | -                | -                |
|                                                    | WBL/T    | A (8.5)         | -               | A (8.7)         | -                | A (8.8)          | -                |
|                                                    | WBT      | -               | -               | -               | -                | -                | -                |
|                                                    | NBL/R    | C (20.4)        | <b>E (38.0)</b> | C (22.5)        | <b>E (45.0)</b>  | D (25.0)         | <b>F (55.0)</b>  |
| Old Cornelia Hwy @ White Sulphur Elementary School | EBT      | -               | -               | -               | -                | -                | -                |
|                                                    | EBR      | -               | -               | -               | -                | -                | -                |
|                                                    | WBL      | A (9.1)         | B (10.8)        | A (9.3)         | B (11.3)         | A (9.6)          | B (11.9)         |
|                                                    | WBT      | -               | -               | -               | -                | -                | -                |
|                                                    | NBL/R    | <b>F (58.4)</b> | D (33.3)        | <b>F (99.2)</b> | <b>E (40.6)</b>  | <b>F (181.3)</b> | <b>F (53.7)</b>  |
| Old Cornelia Hwy @ Oconee Cir                      | EBL      | B (10.6)        | A (8.9)         | B (11.1)        | A (9.1)          | B (11.6)         | A (9.3)          |
|                                                    | EBT      | -               | -               | -               | -                | -                | -                |
|                                                    | EBR      | -               | -               | -               | -                | -                | -                |
|                                                    | WBL      | A (8.7)         | B (11.0)        | A (8.9)         | B (11.5)         | A (9.0)          | B (12.1)         |
|                                                    | WBT      | -               | -               | -               | -                | -                | -                |
|                                                    | WBT/R    | -               | -               | -               | -                | -                | -                |
|                                                    | NBL/T/R  | B (13.1)        | <b>F (75.7)</b> | B (13.9)        | <b>F (153.7)</b> | C (16.4)         | <b>F (297.3)</b> |
|                                                    | SBL/T/R  | C (23.7)        | B (14.8)        | D (29.6)        | C (16.2)         | <b>E (40.8)</b>  | C (18.3)         |



Capacity results indicate that the following intersections are projected to experience unacceptable operation under No-Build conditions with widening on Old Cornelia Highway:

- Phase 1 (2025):
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'E' on the northbound approach in the PM Peak Hour.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'F' on the northbound approach in the AM Peak Hour.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'F' on the northbound approach in the PM Peak Hour.
- Phase 2 (2030):
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'E' in the PM Peak Hour.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'E' or worse on the northbound approach in both peak hours.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'F' on the northbound approach in the PM Peak Hour.
- Phase 3 (2035):
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'F' on the northbound approach in the PM Peak Hour.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'F' on the northbound approach in both peak hours.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'E' on the southbound approach in the AM Peak Hour and at LOS 'F' on the northbound approach in the PM Peak Hour.

The capacity analysis results for each of the study intersections under projected Build conditions with widening on Old Cornelia Road are provided in Table 21.

**Table 21: CAPACITY ANALYSIS RESULTS – BUILD CONDITIONS WITH WIDENING**

| INTERSECTION                                       | MOVEMENT | PHASE 1 (2025)   |                  | PHASE 2 (2030)   |                  | PHASE 3 (2035)   |                  |
|----------------------------------------------------|----------|------------------|------------------|------------------|------------------|------------------|------------------|
|                                                    |          | AM PEAK HOUR     | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     |
| Old Cornelia Hwy @ Dana Dr                         | EBT      | -                | -                | -                | -                | -                | -                |
|                                                    | EBT/R    | -                | -                | -                | -                | -                | -                |
|                                                    | WBL/T    | A (9.2)          | -                | A (9.6)          | -                | B (10.0)         | -                |
|                                                    | WBT      | -                | -                | -                | -                | -                | -                |
|                                                    | NBL/R    | D (27.3)         | <b>F (56.3)</b>  | D (33.7)         | <b>F (75.3)</b>  | <b>E (42.3)</b>  | <b>F (112.5)</b> |
| Old Cornelia Hwy @ White Sulphur Elementary School | EBT      | -                | -                | -                | -                | -                | -                |
|                                                    | EBR      | -                | -                | -                | -                | -                | -                |
|                                                    | WBL      | A (9.6)          | B (12.4)         | B (10.1)         | B (13.5)         | B (10.6)         | C (15.2)         |
|                                                    | WBT      | -                | -                | -                | -                | -                | -                |
|                                                    | NBL/R    | <b>F (189.3)</b> | <b>F (52.6)</b>  | <b>F (385.7)</b> | <b>F (92.8)</b>  | <b>F (746.5)</b> | <b>F (233.4)</b> |
| Old Cornelia Hwy @ Ocone Cir                       | EBL      | B (11.7)         | A (9.4)          | B (12.5)         | A (9.8)          | B (13.7)         | B (10.3)         |
|                                                    | EBT      | -                | -                | -                | -                | -                | -                |
|                                                    | EBR      | -                | -                | -                | -                | -                | -                |
|                                                    | WBL      | A (8.9)          | B (12.4)         | A (9.2)          | B (13.4)         | A (9.5)          | B (14.9)         |
|                                                    | WBT      | -                | -                | -                | -                | -                | -                |
|                                                    | WBT/R    | -                | -                | -                | -                | -                | -                |
|                                                    | NBL/T/R  | B (14.6)         | <b>F (240.3)</b> | C (16.4)         | <b>F (531.3)</b> | C (22.6)         | <b>F (*)</b>     |
|                                                    | SBL/T/R  | <b>E (37.6)</b>  | C (24.2)         | <b>F (62.9)</b>  | <b>E (40.3)</b>  | <b>F (142.8)</b> | <b>F (100.8)</b> |
| Old Cornelia Hwy @ Driveway #1                     | EBT      | -                | -                | -                | -                | -                | -                |
|                                                    | EBT/R    | -                | -                | -                | -                | -                | -                |
|                                                    | WBL/T    | A (9.1)          | C (18.4)         | A (9.5)          | D (26.6)         | A (9.9)          | <b>F (66.2)</b>  |
|                                                    | WBT      | -                | -                | -                | -                | -                | C (15.2)         |
|                                                    | NBL/R    | <b>F (453.2)</b> | <b>F (*)</b>     | <b>F (997.0)</b> | <b>F (*)</b>     | <b>F (*)</b>     | <b>F (*)</b>     |

Capacity results indicate that the following intersections are projected to experience unacceptable operation under Build conditions with widening on Old Cornelia Highway:

- Phase 1 (2025):
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'F' on the northbound approach in the PM Peak Hour.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'F' on the northbound approach in both peak hours.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'E' on the southbound approach in the AM Peak Hour and at LOS 'F' on the northbound approach in the PM Peak Hour.
  - Old Cornelia Highway and Driveway #1, which is projected to operate at LOS 'F' on the northbound approach in both peak hours.
- Phase 2 (2030):
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'F' on the northbound approach in the PM Peak Hour.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'F' on the northbound approach in both peak hours.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'E' or worse on the southbound approach in both peak hours and at LOS 'F' on the northbound approach in the PM Peak Hour.
  - Old Cornelia Highway and Driveway #1, which is projected to operate at LOS 'F' on the northbound approach in both peak hours.
- Phase 3 (2035):
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'E' or worse on the northbound approach in both peak hours.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'F' on the northbound approach in both peak hours.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'F' on the southbound approach in both peak hours and at LOS 'F' on the northbound approach in the PM Peak Hour.
  - Old Cornelia Highway and Driveway #1, which is projected to operate at LOS 'F' on the northbound approach in both peak hours and at LOS 'F' on the westbound approach in the PM Peak Hour.

## DRIVEWAY #1 IMPROVEMENTS

The intersection of Old Cornelia Highway and Driveway #1 was evaluated for alternative traffic control. Due to the close proximity to the intersections with White Sulphur Elementary School and Dana Drive, these improvements were evaluated with those intersections to observe how they operate. The following improvements were evaluated at Old Cornelia Highway and Driveway #1:

- Minor Street Stop Control, with added turn lanes
- Traffic Signal
- Multilane Roundabout

Additionally, each alternative was evaluated under two scenarios: with the existing geometry and with four lane widening on Old Cornelia Highway.

In order to determine if a signal would be warranted at the intersection, the 8<sup>th</sup> highest hour volume was estimated and compared to the volume thresholds of Warrants #1 and #2, which are established in the *MUTCD* handbook. The daily volume was estimated from the highest peak hour volume and the K-factor, which was found from the ATR data to be 9.4% on SR 81. The 8<sup>th</sup> highest hour, which is estimated to be 5.6% of the daily traffic in accordance with the GDOT Design Manual, was then calculated from the daily volume through the intersection.

Further analysis was conducted to check each of the intersections against Warrant 2 – Four Hour Vehicular Volume. The 4<sup>th</sup> highest hour was calculated to be 7.8% from the K-factor and the 8<sup>th</sup> highest hour.

The warrant analysis was conducted in two ways: the conventional method, using the side street Volumes.

Table 22 and 23 on the following page summarizes the results of the signal warrants with the conventional method, using the 70% thresholds for the study intersection. Signal Warrants were evaluated using 2025, 2030, and 2035 Build volumes, the 8<sup>th</sup> highest hour method, and the 4<sup>th</sup> highest hour.

$$\text{Estimated Daily Volume} = \frac{\text{Highest Peak Hour Volume}}{K - \text{factor}}$$

**2025:**  $\text{Estimated Daily Volume}_{\text{Major Street, 2025}} = \frac{1491}{.094} \approx 15862$   
 $\text{Estimated Daily Volume}_{\text{Minor Street, 2025}} = \frac{210}{.094} \approx 2234$

**2030:**  $\text{Estimated Daily Volume}_{\text{Major Street, 2030}} = \frac{1616}{.094} \approx 17191$   
 $\text{Estimated Daily Volume}_{\text{Minor Street, 2030}} = \frac{265}{.094} \approx 2819$

**2035:**  $\text{Estimated Daily Volume}_{\text{Major Street, 2035}} = \frac{1756}{.094} \approx 18680$   
 $\text{Estimated Daily Volume}_{\text{Minor Street, 2035}} = \frac{329}{.094} \approx 3500$

$$8\text{th Highest Hour Volume} = \frac{\text{Highest Peak Hour Volume}}{K - \text{factor}} * .056$$

**2025:**  $8\text{th Highest Hour Volume}_{\text{Major Street, 2025}} = \frac{1491}{.094} * .056 \approx 888$   
 $8\text{th Highest Hour Volume}_{\text{Minor Street, 2025}} = \frac{210}{.094} * .056 \approx 125$

**2030:**  $8\text{th Highest Hour Volume}_{\text{Major Street, 2030}} = \frac{1616}{.094} * .056 \approx 963$   
 $8\text{th Highest Hour Volume}_{\text{Minor Street, 2030}} = \frac{265}{.094} * .056 \approx 158$

**2035:**  $8\text{th Highest Hour Volume}_{\text{Major Street, 2035}} = \frac{1756}{.094} * .056 \approx 1046$   
 $8\text{th Highest Hour Volume}_{\text{Minor Street, 2035}} = \frac{329}{.094} * .056 \approx 196$



$$\frac{4\text{th Highest Hour Volume}}{K - \text{factor}} = \frac{\text{Highest Peak Hour Volume}}{K - \text{factor}} * (.056 + (K \text{ factor} - .056) \left(\frac{4}{7}\right))$$

**2025:**  $4\text{th Highest Hour Volume}_{\text{Major Street, 2025}} = \frac{1491}{.094} * (.056 + (.038) \left(\frac{4}{7}\right)) \approx 1233$   
 $4\text{th Highest Hour Volume}_{\text{Minor Street, 2025}} = \frac{210}{.094} * (.056 + (.038) \left(\frac{4}{7}\right)) \approx 174$   
**2030:**  $4\text{th Highest Hour Volume}_{\text{Major Street, 2030}} = \frac{1616}{.094} * (.056 + (.038) \left(\frac{4}{7}\right)) \approx 1336$   
 $4\text{th Highest Hour Volume}_{\text{Minor Street, 2030}} = \frac{265}{.094} * (.056 + (.038) \left(\frac{4}{7}\right)) \approx 219$   
**2035:**  $4\text{th Highest Hour Volume}_{\text{Major Street, 2035}} = \frac{1756}{.094} * (.056 + (.038) \left(\frac{4}{7}\right)) \approx 1452$   
 $4\text{th Highest Hour Volume}_{\text{Minor Street, 2035}} = \frac{329}{.094} * (.056 + (.038) \left(\frac{4}{7}\right)) \approx 272$

**Table 22: TRAFFIC SIGNAL WARRANTS (CONVENTIONAL METHOD), EXISTING GEOMETRY**

| YEAR | HIGHEST PEAK HOUR VOLUMES (MAJOR/MINOR) | ESTIMATED DAILY VOLUME | 8 <sup>th</sup> HIGHEST PEAK HOUR (Warrant 1) | Warrant 1A       | Warrant 1B      | 4 <sup>th</sup> HIGHEST PEAK HOUR (Warrant 2) | Warrant 2        |
|------|-----------------------------------------|------------------------|-----------------------------------------------|------------------|-----------------|-----------------------------------------------|------------------|
|      |                                         |                        |                                               | (70%)<br>350/105 | (70%)<br>525/53 |                                               | (70%)<br>1000/60 |
| 2025 | 1491/210                                | 15862/2234             | 888/125                                       | Y/Y              | Y/Y             | 1233/174                                      | Y/Y              |
| 2030 | 1616/265                                | 17191/2819             | 963/158                                       | Y/Y              | Y/Y             | 1336/219                                      | Y/Y              |
| 2035 | 1756/329                                | 18680/3500             | 1046/196                                      | Y/Y              | Y/Y             | 1452/272                                      | Y/Y              |

**Table 23: TRAFFIC SIGNAL WARRANTS (CONVENTIONAL METHOD), FOUR LANE GEOMETRY**

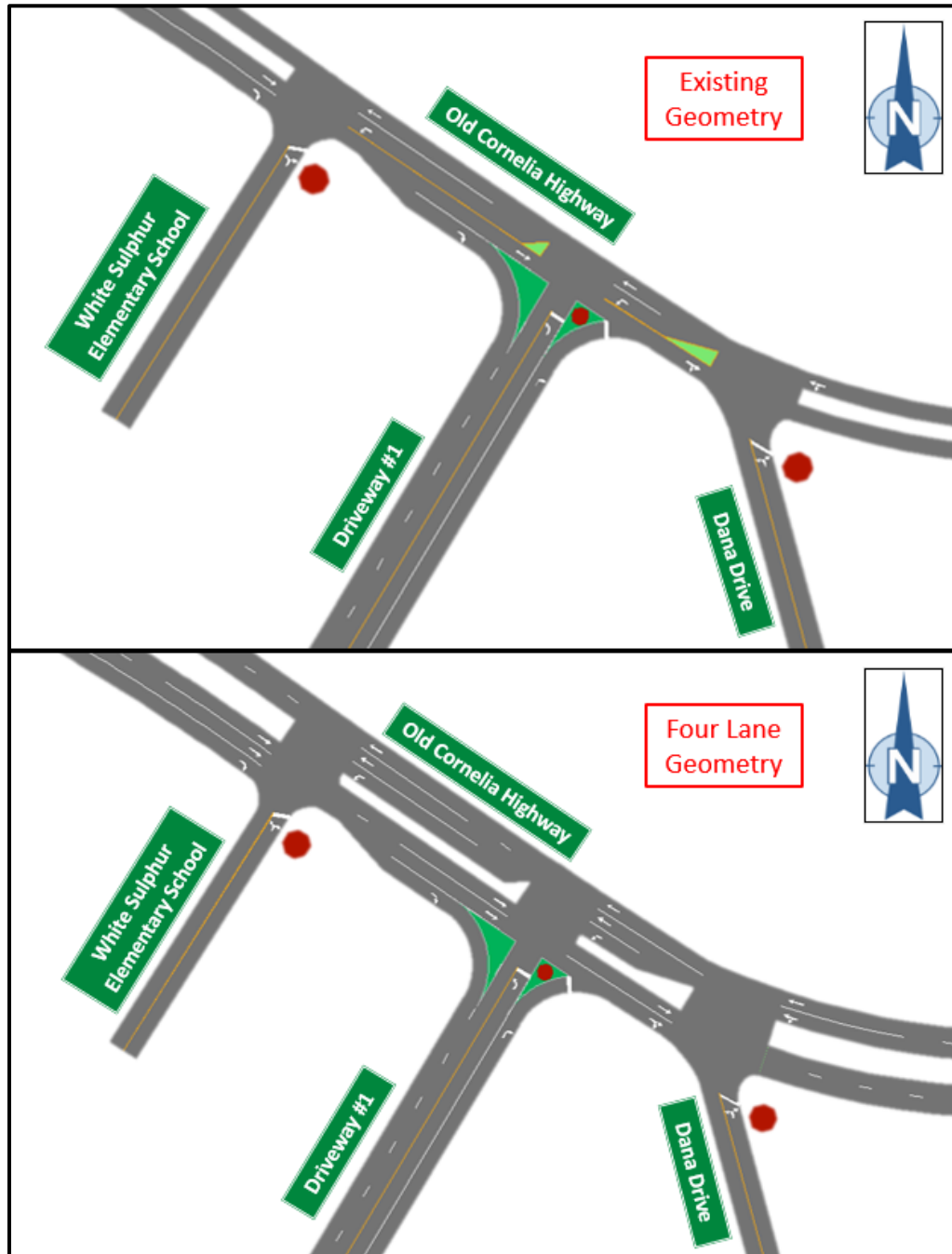
| YEAR | HIGHEST PEAK HOUR VOLUMES (MAJOR/MINOR) | ESTIMATED DAILY VOLUME | 8 <sup>th</sup> HIGHEST PEAK HOUR (Warrant 1) | Warrant 1A       | Warrant 1B      | 4 <sup>th</sup> HIGHEST PEAK HOUR (Warrant 2) | Warrant 2        |
|------|-----------------------------------------|------------------------|-----------------------------------------------|------------------|-----------------|-----------------------------------------------|------------------|
|      |                                         |                        |                                               | (70%)<br>420/105 | (70%)<br>630/70 |                                               | (70%)<br>1000/80 |
| 2025 | 1491/210                                | 15862/2234             | 888/125                                       | Y/Y              | Y/Y             | 1233/174                                      | Y/Y              |
| 2030 | 1616/265                                | 17191/2819             | 963/158                                       | Y/Y              | Y/Y             | 1336/219                                      | Y/Y              |
| 2035 | 1756/329                                | 18680/3500             | 1046/196                                      | Y/Y              | Y/Y             | 1452/272                                      | Y/Y              |

Warrant analysis indicates that the intersection meets the 100% threshold for signal warrants 1 and 2 using the conventional method beginning in 2025 for both existing and proposed geometry.

## MINOR STREET STOP CONTROL, WITH ADDED TURN LANES

The first alternative evaluated at the site driveway was minor street stop control with added turn lanes. Figure 21 below shows the intersection with turn lane improvements and with the existing and four lane geometry.

Figure 21: MINOR STREET STOP CONTROL, WITH ADDED TURN LANES



The capacity analysis results for the site driveway are provided in Tables 24 and 25. The delay for the intersections at White Sulphur Elementary School and Dana Drive maintain the same results listed in Tables 19 and 21. Capacity analysis results for each of the Driveway #1 improvements and the nearby intersections are included in Appendix M.

**Table 24: CAPACITY ANALYSIS RESULTS – ADDED TURN LANES (TWO LANE GEOMETRY)**

| INTERSECTION                   | MOVEMENT | PHASE 1 (2025)   |                 | PHASE 2 (2030) |                 | PHASE 3 (2035) |                  |
|--------------------------------|----------|------------------|-----------------|----------------|-----------------|----------------|------------------|
|                                |          | AM PEAK HOUR     | PM PEAK HOUR    | AM PEAK HOUR   | PM PEAK HOUR    | AM PEAK HOUR   | PM PEAK HOUR     |
| Old Cornelia Hwy @ Driveway #1 | EBT      | -                | -               | -              | -               | -              | -                |
|                                | EBR      | -                | -               | -              | -               | -              | -                |
|                                | WBL      | A (8.8)          | B (14.1)        | A (9.1)        | C (16.8)        | A (9.4)        | C (23.8)         |
|                                | WBT      | -                | -               | -              | -               | -              | -                |
|                                | NBL      | <b>F (721.6)</b> | <b>F (*)</b>    | <b>F (*)</b>   | <b>F (*)</b>    | <b>F (*)</b>   | <b>F (*)</b>     |
|                                | NBR      | C (16.0)         | <b>E (35.1)</b> | C (19.5)       | <b>F (57.8)</b> | D (27.3)       | <b>F (132.9)</b> |

**Table 25: CAPACITY ANALYSIS RESULTS – ADDED TURN LANES (FOUR LANE GEOMETRY)**

| INTERSECTION                   | MOVEMENT | PHASE 1 (2025)   |              | PHASE 2 (2030)   |              | PHASE 3 (2035) |              |
|--------------------------------|----------|------------------|--------------|------------------|--------------|----------------|--------------|
|                                |          | AM PEAK HOUR     | PM PEAK HOUR | AM PEAK HOUR     | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR |
| Old Cornelia Hwy @ Driveway #1 | EBT      | -                | -            | -                | -            | -              | -            |
|                                | EBR      | -                | -            | -                | -            | -              | -            |
|                                | WBL      | A (8.8)          | B (14.2)     | A (9.1)          | C (17.0)     | A (9.4)        | C (24.2)     |
|                                | WBT      | -                | -            | -                | -            | -              | -            |
|                                | NBL      | <b>F (247.2)</b> | <b>F (*)</b> | <b>F (573.3)</b> | <b>F (*)</b> | <b>F (*)</b>   | <b>F (*)</b> |
|                                | NBR      | B (12.0)         | C (15.7)     | B (13.2)         | C (18.1)     | C (15.1)       | C (22.5)     |

Capacity results for the site driveway with added turn lanes indicate the following:

- Existing Geometry
  - Phase 1 (2025)
    - The northbound left turn movement is projected to operate at LOS 'F' for both peak hours.
    - The northbound right turn movement is projected to operate at LOS 'E' in the PM Peak Hour.
  - Phase 2 (2030)
    - The northbound left turn movement is projected to operate at LOS 'F' for both peak hours.
    - The northbound right turn movement is projected to operate at LOS 'F' in the PM Peak Hour.
  - Phase 3 (2035)
    - The northbound left turn movement is projected to operate at LOS 'F' for both peak hours.
    - The Northbound right turn movement is projected to operate at LOS 'F' in the PM Peak Hour.
- Four Lane Geometry
  - Phase 1 (2025)
    - The northbound left turn movement is projected to operate at LOS 'F' for both peak hours.
  - Phase 2 (2030)
    - The northbound left turn movement is projected to operate at LOS 'F' for both peak hours.
  - Phase 3 (2035)
    - The northbound left turn movement is projected to operate at LOS 'F' for both peak hours.

Tables 26 and 27 below shows the corresponding 95<sup>th</sup> percentile queue lengths (in feet) for each approach at the intersection of Old Cornelia Highway and Driveway #1, as well as the adjacent intersections.

**Table 26: 95<sup>TH</sup> PERCENTILE QUEUE LENGTH (FT) – ADDED TURN LANES (TWO LANE GEOMETRY)**

| INTERSECTION                                       | MOVEMENT | PHASE 1 (2025) |              | PHASE 2 (2030) |              | PHASE 3 (2035) |              |
|----------------------------------------------------|----------|----------------|--------------|----------------|--------------|----------------|--------------|
|                                                    |          | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR |
| Old Cornelia Hwy @ Dana Dr                         | EBT/R    | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL/T    | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | NBL/R    | 18             | 13           | 25             | 20           | 35             | 30           |
| Old Cornelia Hwy @ White Sulphur Elementary School | EBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | EBR      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL      | 10             | 5            | 13             | 8            | 15             | 10           |
|                                                    | WBT      | 0              | 0            | 0              | 0            | 0              | 0            |
| Old Cornelia Hwy @ Driveway #1                     | NBL/R    | 450            | 123          | 568            | 188          | 683            | 288          |
|                                                    | EBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | EBR      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL      | 5              | 43           | 8              | 65           | 10             | 118          |
|                                                    | WBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | NBL      | 518            | 445          | 753            | 603          | 1045           | 780          |
| Old Cornelia Hwy @ Driveway #1                     | NBR      | 45             | 73           | 70             | 130          | 123            | 243          |

**Table 27: 95<sup>TH</sup> PERCENTILE QUEUE LENGTH (FT)– ADDED TURN LANES (FOUR LANE GEOMETRY)**

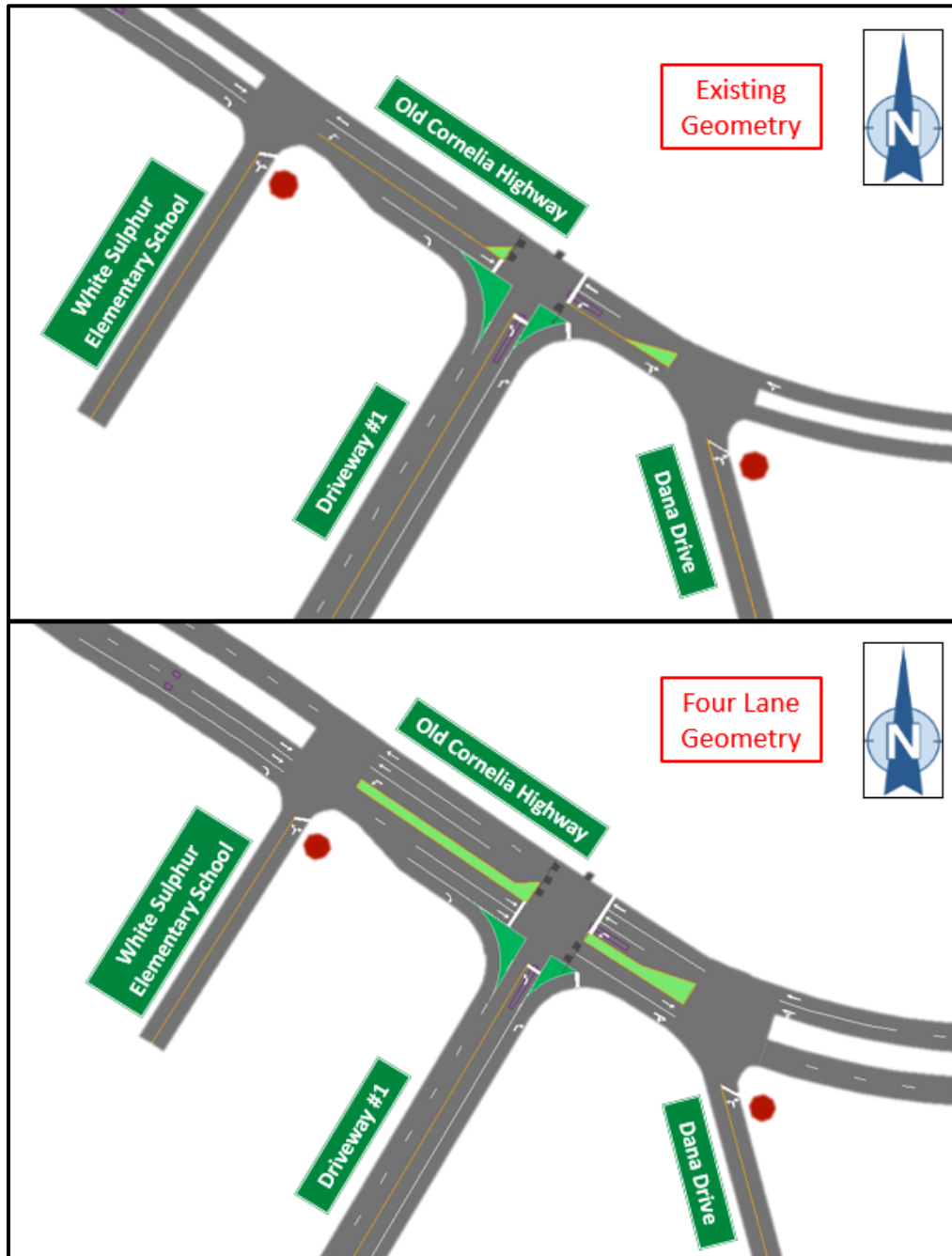
| INTERSECTION                                       | MOVEMENT | PHASE 1 (2025) |              | PHASE 2 (2030) |              | PHASE 3 (2035) |              |
|----------------------------------------------------|----------|----------------|--------------|----------------|--------------|----------------|--------------|
|                                                    |          | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR |
| Old Cornelia Hwy @ Dana Dr                         | EBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | EBT/R    | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL/T    | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | NBL/R    | 10             | 10           | 13             | 13           | 18             | 20           |
| Old Cornelia Hwy @ White Sulphur Elementary School | EBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | EBR      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL      | 10             | 5            | 13             | 8            | 15             | 10           |
|                                                    | WBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | NBL/R    | 270            | 73           | 390            | 118          | 533            | 205          |
| Old Cornelia Hwy @ Driveway #1                     | EBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | EBR      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL      | 5              | 43           | 8              | 65           | 10             | 120          |
|                                                    | WBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | NBL      | 345            | 428          | 588            | 595          | 898            | 778          |
|                                                    | NBR      | 30             | 30           | 43             | 43           | 63             | 70           |



## TRAFFIC SIGNAL

The second alternative evaluated at the site driveway was a traffic signal, with additional turn lanes. Figure 22 below shows the intersection under signal control and with the existing and four lane geometry.

**Figure 22: TRAFFIC SIGNAL, WITH ADDED TURN LANES**



The capacity analysis results for the site driveway are provided in Tables 28 and 29.

**Table 28: CAPACITY ANALYSIS RESULTS – TRAFFIC SIGNAL (TWO LANE GEOMETRY)**

| INTERSECTION                      | MOVEMENT | PHASE 1 (2025) |                 | PHASE 2 (2030) |                 | PHASE 3 (2035)  |                  |
|-----------------------------------|----------|----------------|-----------------|----------------|-----------------|-----------------|------------------|
|                                   |          | AM PEAK HOUR   | PM PEAK HOUR    | AM PEAK HOUR   | PM PEAK HOUR    | AM PEAK HOUR    | PM PEAK HOUR     |
| Old Cornelia Hwy @<br>Driveway #1 | Signal   | B (11.3)       | B (16.3)        | B (15.6)       | D (45.6)        | C (30.6)        | <b>E (78.5)</b>  |
|                                   | EBT      | A (8.3)        | B (14.1)        | B (10.3)       | D (47.5)        | B (13.2)        | <b>E (78.8)</b>  |
|                                   | EBR      | -              | -               | -              | -               | -               | -                |
|                                   | WBL      | A (5.4)        | C (25.0)        | A (7.0)        | <b>F (85.1)</b> | A (9.6)         | <b>F (155.5)</b> |
|                                   | WBT      | A (7.3)        | A (2.7)         | B (11.3)       | A (3.5)         | C (32.3)        | A (3.8)          |
|                                   | NBL      | D (37.8)       | <b>E (63.9)</b> | D (45.3)       | <b>F (96.8)</b> | <b>E (62.8)</b> | <b>F (149.0)</b> |
|                                   | NBR      | -              | -               | -              | -               | -               | -                |

**Table 29: CAPACITY ANALYSIS RESULTS – TRAFFIC SIGNAL (FOUR LANE GEOMETRY)**

| INTERSECTION                      | MOVEMENT | PHASE 1 (2025) |              | PHASE 2 (2030) |              | PHASE 3 (2035) |              |
|-----------------------------------|----------|----------------|--------------|----------------|--------------|----------------|--------------|
|                                   |          | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR |
| Old Cornelia Hwy @<br>Driveway #1 | Signal   | A (7.8)        | A (8.5)      | A (9.3)        | B (10.4)     | B (13.6)       | B (13.7)     |
|                                   | EBT      | A (7.8)        | A (8.6)      | A (9.1)        | B (10.4)     | B (17.3)       | B (13.6)     |
|                                   | EBR      | -              | -            | -              | -            | -              | -            |
|                                   | WBL      | A (4.9)        | A (7.3)      | A (5.8)        | B (10.8)     | B (14.9)       | B (17.4)     |
|                                   | WBT      | A (4.5)        | A (2.6)      | A (5.6)        | A (3.0)      | A (7.5)        | A (3.6)      |
|                                   | NBL      | C (22.5)       | C (28.9)     | C (24.4)       | C (31.1)     | C (28.1)       | C (34.2)     |
|                                   | NBR      | -              | -            | -              | -            | -              | -            |

Capacity results for the site driveway under signal control indicate the following:

- Existing Geometry
  - Phase 1 (2025)
    - The traffic signal is projected to operate at LOS 'B' for both peak hours.
  - Phase 2 (2030)
    - The traffic signal is projected to operate at LOS 'D' or better for both peak hours.
  - Phase 3 (2035)
    - The traffic signal is projected to operate at LOS 'C' in the AM Peak Hour and LOS 'E' in the PM Peak Hour.
- Four Lane Geometry
  - Phase 1 (2025)
    - The traffic signal is projected to operate at LOS 'A' for both peak hours.
  - Phase 2 (2030)
    - The traffic signal is projected to operate at LOS 'B' or better for both peak hours.
  - Phase 3 (2035)
    - The traffic signal is projected to operate at LOS 'B' for both peak hours.

Tables 30 and 31 below shows the corresponding 95<sup>th</sup> percentile queue lengths (in feet) for each approach at the intersection of Old Cornelia Highway and Driveway #1, as well as the adjacent intersections.

**Table 30: 95<sup>TH</sup> PERCENTILE QUEUE LENGTH (FT) – TRAFFIC SIGNAL (TWO LANE GEOMETRY)**

| INTERSECTION                                       | MOVEMENT | PHASE 1 (2025) |              | PHASE 2 (2030) |              | PHASE 3 (2035) |              |
|----------------------------------------------------|----------|----------------|--------------|----------------|--------------|----------------|--------------|
|                                                    |          | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR |
| Old Cornelia Hwy @ Dana Dr                         | EBT/R    | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL/T    | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | NBL/R    | 18             | 13           | 25             | 20           | 35             | 30           |
| Old Cornelia Hwy @ White Sulphur Elementary School | EBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | EBR      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL      | 10             | 5            | 13             | 8            | 15             | 10           |
|                                                    | WBT      | 0              | 0            | 0              | 0            | 0              | 0            |
| Old Cornelia Hwy @ Driveway #1                     | NBL/R    | 450            | 123          | 568            | 188          | 683            | 288          |
|                                                    | EBT      | 175            | 568          | 238            | 1368         | 325            | 1820         |
|                                                    | EBR      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL      | 10             | 200          | 20             | 455          | 33             | 703          |
|                                                    | WBT      | 233            | 75           | 383            | 135          | 893            | 160          |
|                                                    | NBL      | 200            | 218          | 283            | 350          | 425            | 505          |
| Old Cornelia Hwy @ Driveway #1                     | NBR      | 0              | 0            | 0              | 0            | 0              | 0            |

**Table 31: 95<sup>TH</sup> PERCENTILE QUEUE LENGTH (FT)– TRAFFIC SIGNAL (FOUR LANE GEOMETRY)**

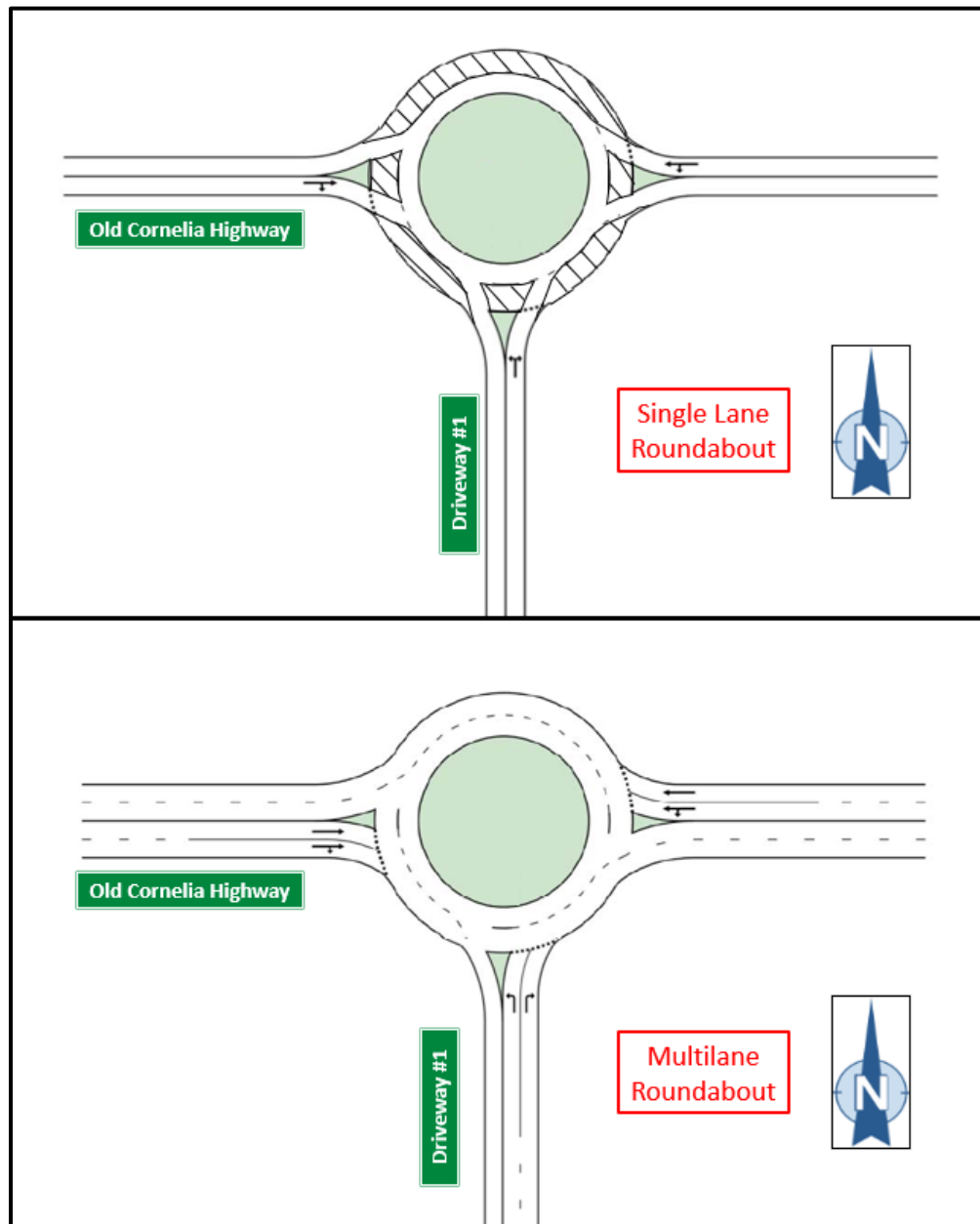
| INTERSECTION                                       | MOVEMENT | PHASE 1 (2025) |              | PHASE 2 (2030) |              | PHASE 3 (2035) |              |
|----------------------------------------------------|----------|----------------|--------------|----------------|--------------|----------------|--------------|
|                                                    |          | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR |
| Old Cornelia Hwy @ Dana Dr                         | EBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | EBT/R    | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL/T    | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | NBL/R    | 10             | 10           | 13             | 13           | 18             | 20           |
| Old Cornelia Hwy @ White Sulphur Elementary School | EBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | EBR      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL      | 10             | 5            | 13             | 8            | 15             | 10           |
|                                                    | WBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | NBL/R    | 270            | 73           | 390            | 118          | 533            | 205          |
| Old Cornelia Hwy @ Driveway #1                     | EBT      | 53             | 138          | 73             | 190          | 153            | 258          |
|                                                    | EBR      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL      | 8              | 23           | 13             | 43           | 45             | 138          |
|                                                    | WBT      | 45             | 13           | 75             | 23           | 148            | 35           |
|                                                    | NBL      | 113            | 98           | 160            | 135          | 233            | 188          |
|                                                    | NBR      | 0              | 0            | 0              | 0            | 0              | 0            |

Based on the queuing analysis, the traffic signal will experience queues that will extend into the adjacent intersections with both the existing and four lane geometry beginning in Phase 1 (2025).

## ROUNDAABOUT

The third alternative evaluated at the site driveway was a roundabout. This alternative was evaluated as a single lane roundabout with the existing geometry, and as a multilane roundabout with widened four lane geometry. Figure 23 below shows the intersection under roundabout control improvements and with the existing and four lane geometry.

**Figure 23: SINGLE/MULTILANE ROUNDAABOUT**





The capacity analysis results for the site driveway are provided in Tables 32 and 33.

**Table 32: CAPACITY ANALYSIS RESULTS – SINGLE LANE ROUNDABOUT (TWO LANE GEOMETRY)**

| INTERSECTION                      | MOVEMENT | PHASE 1 (2025)  |                  | PHASE 2 (2030)   |                  | PHASE 3 (2035)   |                  |
|-----------------------------------|----------|-----------------|------------------|------------------|------------------|------------------|------------------|
|                                   |          | AM PEAK HOUR    | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     |
| Old Cornelia Hwy @<br>Driveway #1 | EBT/R    | A (8.9)         | <b>F (171.7)</b> | A (9.8)          | <b>F (257.7)</b> | B (10.6)         | <b>F (373.0)</b> |
|                                   | WBL/T    | <b>F (57.3)</b> | B (12.9)         | <b>F (107.1)</b> | C (17.1)         | <b>F (170.6)</b> | D (26.6)         |
|                                   | NBL/R    | B (12.9)        | C (24.0)         | C (19.0)         | D (25.4)         | <b>E (35.7)</b>  | D (26.3)         |

**Table 33: CAPACITY ANALYSIS RESULTS – MULTILANE ROUNDABOUT (FOUR LANE GEOMETRY)**

| INTERSECTION                      | MOVEMENT | PHASE 1 (2025) |              | PHASE 2 (2030) |              | PHASE 3 (2035) |              |
|-----------------------------------|----------|----------------|--------------|----------------|--------------|----------------|--------------|
|                                   |          | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR |
| Old Cornelia Hwy @<br>Driveway #1 | EBT/R    | A (4.9)        | B (10.9)     | A (5.2)        | B (13.3)     | A (5.5)        | C (18.7)     |
|                                   | WBL/T    | A (8.2)        | A (5.9)      | A (9.4)        | A (6.5)      | B (11.0)       | A (7.4)      |
|                                   | NBL/R    | A (5.9)        | A (8.2)      | A (6.6)        | B (10.1)     | A (7.5)        | B (13.8)     |

Capacity results for the site driveway under roundabout control indicate the following:

- Existing Geometry
  - Phase 1 (2025)
    - The single lane roundabout is projected to operate at LOS 'F' on the westbound approach in the AM Peak Hour.
    - The single lane roundabout is projected to operate at LOS 'F' on the eastbound approach in the PM Peak Hour.
  - Phase 2 (2030)
    - The single lane roundabout is projected to operate at LOS 'F' on the westbound approach in the AM Peak Hour.
    - The single lane roundabout is projected to operate at LOS 'F' on the eastbound approach in the PM Peak Hour.
  - Phase 3 (2035)
    - The single lane roundabout is projected to operate at LOS 'F' on the westbound approach in the AM Peak Hour.
    - The single lane roundabout is projected to operate at LOS 'E' on the northbound approach in the AM Peak Hour.
    - The single lane roundabout is projected to operate at LOS 'F' on the eastbound approach in the PM Peak Hour.
- Four Lane Geometry
  - Phase 1 (2025)
    - The multilane roundabout is projected to operate at LOS 'B' or better for both peak hours on all approaches.
  - Phase 2 (2030)
    - The multilane roundabout is projected to operate at LOS 'B' or better for both peak hours on all approaches.
  - Phase 3 (2035)
    - The multilane roundabout is projected to operate at LOS 'C' or better for both peak hours on all approaches.

Tables 34 and 35 below shows the corresponding 95<sup>th</sup> percentile queue lengths (in feet) for each approach at the intersection of Old Cornelia Highway and Driveway #1, as well as the adjacent intersections.

**Table 34: 95<sup>TH</sup> PERCENTILE QUEUE LENGTH (FT) – SINGLE LANE ROUNDABOUT (TWO LANE GEOMETRY)**

| INTERSECTION                                       | MOVEMENT | PHASE 1 (2025) |              | PHASE 2 (2030) |              | PHASE 3 (2035) |              |
|----------------------------------------------------|----------|----------------|--------------|----------------|--------------|----------------|--------------|
|                                                    |          | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR |
| Old Cornelia Hwy @ Dana Dr                         | EBT/R    | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL/T    | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | NBL/R    | 18             | 13           | 25             | 20           | 35             | 30           |
| Old Cornelia Hwy @ White Sulphur Elementary School | EBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | EBR      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL      | 10             | 5            | 13             | 8            | 15             | 10           |
|                                                    | WBT      | 0              | 0            | 0              | 0            | 0              | 0            |
| Old Cornelia Hwy @ Driveway #1                     | NBL/R    | 450            | 123          | 568            | 188          | 683            | 288          |
|                                                    | EBT/R    | 137            | 3893         | 160            | 5178         | 185            | 6803         |
|                                                    | WBL/T    | 1669           | 191          | 2431           | 403          | 3349           | 807          |
|                                                    | NBL/R    | 135            | 177          | 256            | 226          | 554            | 289          |

**Table 35: 95<sup>TH</sup> PERCENTILE QUEUE LENGTH (FT)– MULTILANE ROUNDABOUT (FOUR LANE GEOMETRY)**

| INTERSECTION                                       | MOVEMENT | PHASE 1 (2025) |              | PHASE 2 (2030) |              | PHASE 3 (2035) |              |
|----------------------------------------------------|----------|----------------|--------------|----------------|--------------|----------------|--------------|
|                                                    |          | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR |
| Old Cornelia Hwy @ Dana Dr                         | EBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | EBT/R    | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL/T    | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | NBL/R    | 10             | 10           | 13             | 13           | 18             | 20           |
| Old Cornelia Hwy @ White Sulphur Elementary School | EBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | EBR      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | WBL      | 10             | 5            | 13             | 8            | 15             | 10           |
|                                                    | WBT      | 0              | 0            | 0              | 0            | 0              | 0            |
|                                                    | NBL/R    | 270            | 73           | 390            | 118          | 533            | 205          |
| Old Cornelia Hwy @ Driveway #1                     | EBT/R    | 34             | 122          | 40             | 245          | 47             | 441          |
|                                                    | WBL/T    | 79             | 47           | 95             | 57           | 153            | 71           |
|                                                    | NBL/R    | 24             | 27           | 32             | 40           | 42             | 71           |

Based on the queuing analysis, both the single lane and multilane roundabouts will experience queues that will extend into the adjacent intersections beginning in Phase 1 (2025).

## **DRIVEWAY #1 CONSOLIDATED IMPROVEMENTS**

The alternatives evaluated at the intersection of Old Cornelia Highway and Driveway #1 either do not sufficiently improve operation at the intersection or creates queues that block the nearby unsignalized intersections at White Sulphur Elementary School and Dana Drive. Therefore, additional alternatives were evaluated to implement access control and improve the operation of the existing minor street stop controlled intersections.

The following alternatives were evaluated at Old Cornelia Highway and Driveway #1:

- Traffic Signal, with Dana Drive and White Sulphur Elementary School consolidated at the proposed location of Driveway #1
- Dumbbell Roundabout, with Dana Drive consolidated with Driveway #1
- Elliptical Roundabout

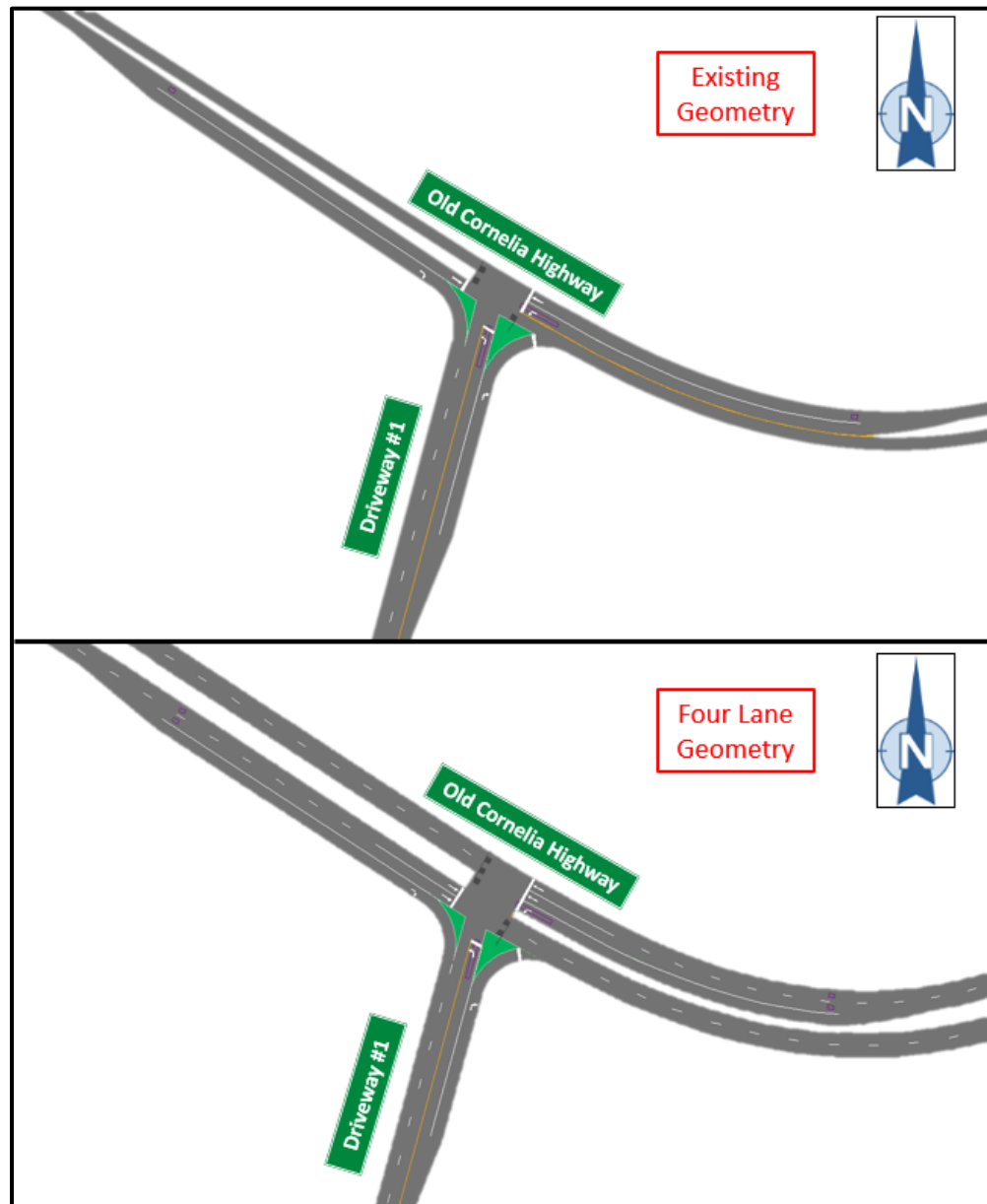
Additionally, each alternative was evaluated under two scenarios: with the existing geometry and with four lane widening on Old Cornelia Highway.

Capacity analysis results for each of the Driveway #1 consolidated improvements are included in Appendix N.

## ALTERNATIVE A: TRAFFIC SIGNAL

The first consolidation alternative evaluated was a traffic signal. In this scenario, both White Sulphur Elementary School and Dana Drive would have access to the development road and have a single access point to Old Cornelia Highway from Driveway #1. Figure 24 below shows the consolidated intersection under signal control and with the existing and four lane geometry.

**Figure 24: TRAFFIC SIGNAL, CONSOLIDATED DRIVEWAY**





The capacity analysis results for the site driveway are provided in Tables 36 and 37.

**Table 36: CAPACITY ANALYSIS RESULTS – ALTERNATIVE A (TWO LANE GEOMETRY)**

| INTERSECTION                   | MOVEMENT | PHASE 1 (2025) |                 | PHASE 2 (2030) |                 | PHASE 3 (2035) |                  |
|--------------------------------|----------|----------------|-----------------|----------------|-----------------|----------------|------------------|
|                                |          | AM PEAK HOUR   | PM PEAK HOUR    | AM PEAK HOUR   | PM PEAK HOUR    | AM PEAK HOUR   | PM PEAK HOUR     |
| Old Cornelia Hwy @ Driveway #1 | Signal   | B (13.1)       | B (17.7)        | B (17.8)       | D (50.2)        | C (26.0)       | <b>F (83.3)</b>  |
|                                | EBT      | B (10.6)       | B (15.5)        | B (12.5)       | D (54.6)        | B (15.7)       | <b>F (88.4)</b>  |
|                                | EBR      | -              | -               | -              | -               | -              | -                |
|                                | WBL      | A (6.9)        | C (27.1)        | A (8.6)        | <b>F (89.0)</b> | B (11.1)       | <b>F (169.6)</b> |
|                                | WBT      | A (9.2)        | A (3.1)         | B (13.7)       | A (3.9)         | C (23.1)       | A (4.7)          |
|                                | NBL      | C (31.4)       | <b>E (62.1)</b> | D (40.4)       | <b>F (92.5)</b> | D (52.5)       | <b>F (116.6)</b> |
|                                | NBR      | -              | -               | -              | -               | -              | -                |

**Table 37: CAPACITY ANALYSIS RESULTS – ALTERNATIVE A (FOUR LANE GEOMETRY)**

| INTERSECTION                   | MOVEMENT | PHASE 1 (2025) |              | PHASE 2 (2030) |              | PHASE 3 (2035) |              |
|--------------------------------|----------|----------------|--------------|----------------|--------------|----------------|--------------|
|                                |          | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR |
| Old Cornelia Hwy @ Driveway #1 | Signal   | A (9.3)        | A (9.1)      | B (10.7)       | B (11.0)     | B (14.6)       | B (14.7)     |
|                                | EBT      | A (9.8)        | A (9.1)      | B (11.1)       | B (11.0)     | B (18.2)       | B (14.3)     |
|                                | EBR      | -              | -            | -              | -            | -              | -            |
|                                | WBL      | A (6.2)        | A (7.7)      | A (7.3)        | B (11.4)     | B (17.6)       | B (18.9)     |
|                                | WBT      | A (5.6)        | A (2.8)      | A (6.8)        | A (3.3)      | A (8.4)        | A (3.8)      |
|                                | NBL      | C (20.6)       | C (29.0)     | C (22.2)       | C (31.3)     | C (24.0)       | D (35.8)     |
|                                | NBR      | -              | -            | -              | -            | -              | -            |

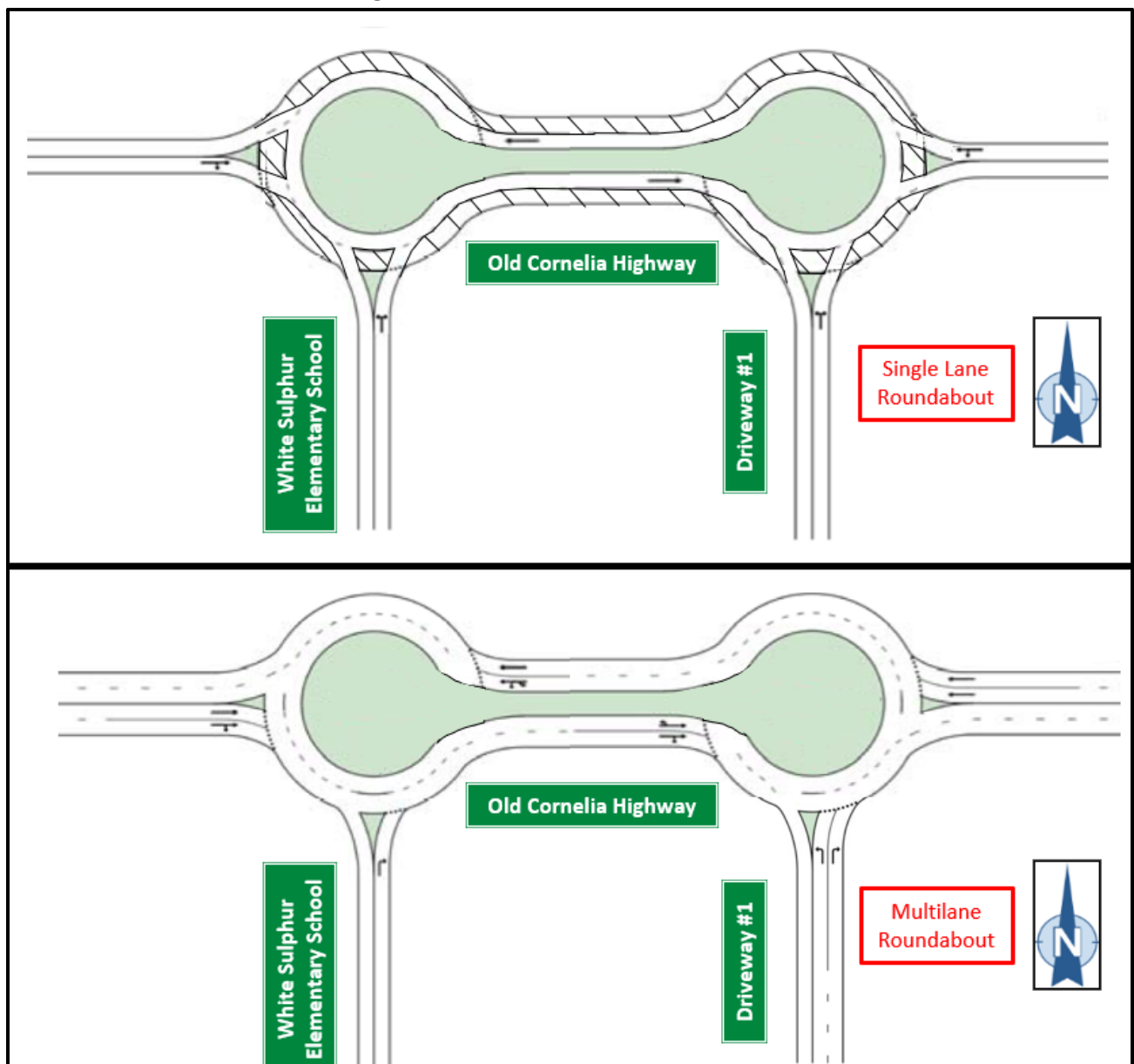
Capacity results for the consolidated site driveway under traffic control indicate the following:

- Existing Geometry
  - Phase 1 (2025)
    - The traffic signal is projected to operate at LOS 'B' for both peak hours.
  - Phase 2 (2030)
    - The traffic signal is projected to operate at LOS 'D' or better for both peak hours.
  - Phase 3 (2035)
    - The traffic signal is projected to operate at LOS 'C' in the AM Peak Hour and LOS 'F' in the PM Peak Hour.
- Four Lane Geometry
  - Phase 1 (2025)
    - The traffic signal is projected to operate at LOS 'A' for both peak hours.
  - Phase 2 (2030)
    - The traffic signal is projected to operate at LOS 'B' for both peak hours.
  - Phase 3 (2035)
    - The traffic signal is projected to operate at LOS 'B' for both peak hours.

## ALTERNATIVE B: DUMBBELL ROUNDABOUT

The second consolidation alternative evaluated was a dumbbell roundabout. A dumbbell roundabout consists of two roundabouts connected together in a relatively short distance. The first roundabout is at the intersection of Old Cornelia Highway And White Sulphur elementary School, and the second roundabout is at the intersection of Old Cornelia Highway and the consolidated driveway of Dana Drive and Driveway #1. This alternative was evaluated as single lane roundabouts with the existing geometry, and multilane roundabouts with the widened four lane geometry. Figure 25 below shows the dumbbell roundabout configuration with the existing and four lane geometry.

Figure 25: DUMBBELL ROUNDABOUT



The capacity analysis results for the site driveway are provided in Tables 38 and 39.

**Table 38: CAPACITY ANALYSIS RESULTS – ALTERNATIVE B (TWO LANE GEOMETRY)**

| INTERSECTION                                             | MOVEMENT | PHASE 1 (2025)  |                  | PHASE 2 (2030)   |                  | PHASE 3 (2035)   |                  |
|----------------------------------------------------------|----------|-----------------|------------------|------------------|------------------|------------------|------------------|
|                                                          |          | AM PEAK HOUR    | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     |
| Old Cornelia Hwy @<br>White Sulphur<br>Elementary School | EBT/R    | B (13.1)        | <b>F (198.6)</b> | C (15.2)         | <b>F (272.5)</b> | C (17.8)         | <b>F (367.9)</b> |
|                                                          | WBL/T    | <b>F (99.6)</b> | B (12.3)         | <b>F (145.6)</b> | C (15.4)         | <b>F (193.3)</b> | C (22.1)         |
|                                                          | NBL/R    | B (11.0)        | C (22.8)         | B (13.2)         | C (24.8)         | C (16.4)         | D (28.7)         |
| Old Cornelia Hwy @<br>Driveway #1                        | EBT/R    | B (11.0)        | <b>F (140.2)</b> | B (12.5)         | <b>F (192.9)</b> | B (14.2)         | <b>F (257.6)</b> |
|                                                          | WBL/T    | <b>F (87.2)</b> | B (14.0)         | <b>F (153.1)</b> | C (18.5)         | <b>F (150.7)</b> | D (29.9)         |
|                                                          | NBL/R    | B (14.3)        | D (33.2)         | C (21.3)         | <b>E (47.2)</b>  | <b>E (40.8)</b>  | <b>F (69.2)</b>  |

**Table 39: CAPACITY ANALYSIS RESULTS – ALTERNATIVE B (FOUR LANE GEOMETRY)**

| INTERSECTION                                             | MOVEMENT | PHASE 1 (2025) |              | PHASE 2 (2030) |              | PHASE 3 (2035) |              |
|----------------------------------------------------------|----------|----------------|--------------|----------------|--------------|----------------|--------------|
|                                                          |          | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR |
| Old Cornelia Hwy @<br>White Sulphur<br>Elementary School | EBT/R    | A (5.9)        | B (12.3)     | A (6.3)        | C (15.2)     | A (6.7)        | C (21.4)     |
|                                                          | WBL/T    | A (7.1)        | A (4.8)      | A (7.8)        | A (5.1)      | A (8.5)        | A (5.5)      |
|                                                          | NBL/R    | A (9.0)        | B (11.7)     | A (9.7)        | B (14.7)     | B (10.4)       | C (21.5)     |
| Old Cornelia Hwy @<br>Driveway #1                        | EBT/R    | A (4.7)        | A (7.6)      | A (4.9)        | A (8.5)      | A (5.1)        | A (9.8)      |
|                                                          | WBL/T    | A (9.2)        | A (6.0)      | B (10.9)       | A (6.7)      | B (13.3)       | A (7.6)      |
|                                                          | NBL/R    | A (6.2)        | A (6.9)      | A (7.0)        | A (7.8)      | A (7.8)        | A (9.1)      |

Capacity results of the dumbbell roundabout indicate the following:

- Existing Geometry
  - Phase 1 (2025)
    - The single lane roundabout of White Sulphur Elementary School is projected to operate at LOS 'F' on the westbound approach in the AM Peak Hour, and at LOS 'F' on the eastbound approach in the PM Peak Hour.
    - The single lane roundabout of Driveway #1 is projected to operate at LOS 'F' on the westbound approach in the AM Peak Hour, and at LOS 'F' on the eastbound approach in the PM Peak Hour.
  - Phase 2 (2030)
    - The single lane roundabout of White Sulphur Elementary School is projected to operate at LOS 'F' on the westbound approach in the AM Peak Hour, and at LOS 'F' on the eastbound approach in the PM Peak Hour.
    - The single lane roundabout of Driveway #1 is projected to operate at LOS 'F' on the westbound approach in the AM Peak Hour, at LOS 'F' on the eastbound approach in the PM Peak Hour, and at LOS 'E' on the northbound approach in the PM Peak Hour.
  - Phase 3 (2035)
    - The single lane roundabout of White Sulphur Elementary School is projected to operate at LOS 'F' on the westbound approach in the AM Peak Hour, and at LOS 'F' on the eastbound approach in the PM Peak Hour.
    - The single lane roundabout of Driveway #1 is projected to operate at LOS 'F' on the westbound approach in the AM Peak Hour, at LOS 'F' on the eastbound approach in the PM Peak Hour, and at LOS 'E' or worse on the northbound approach for both peak hours.

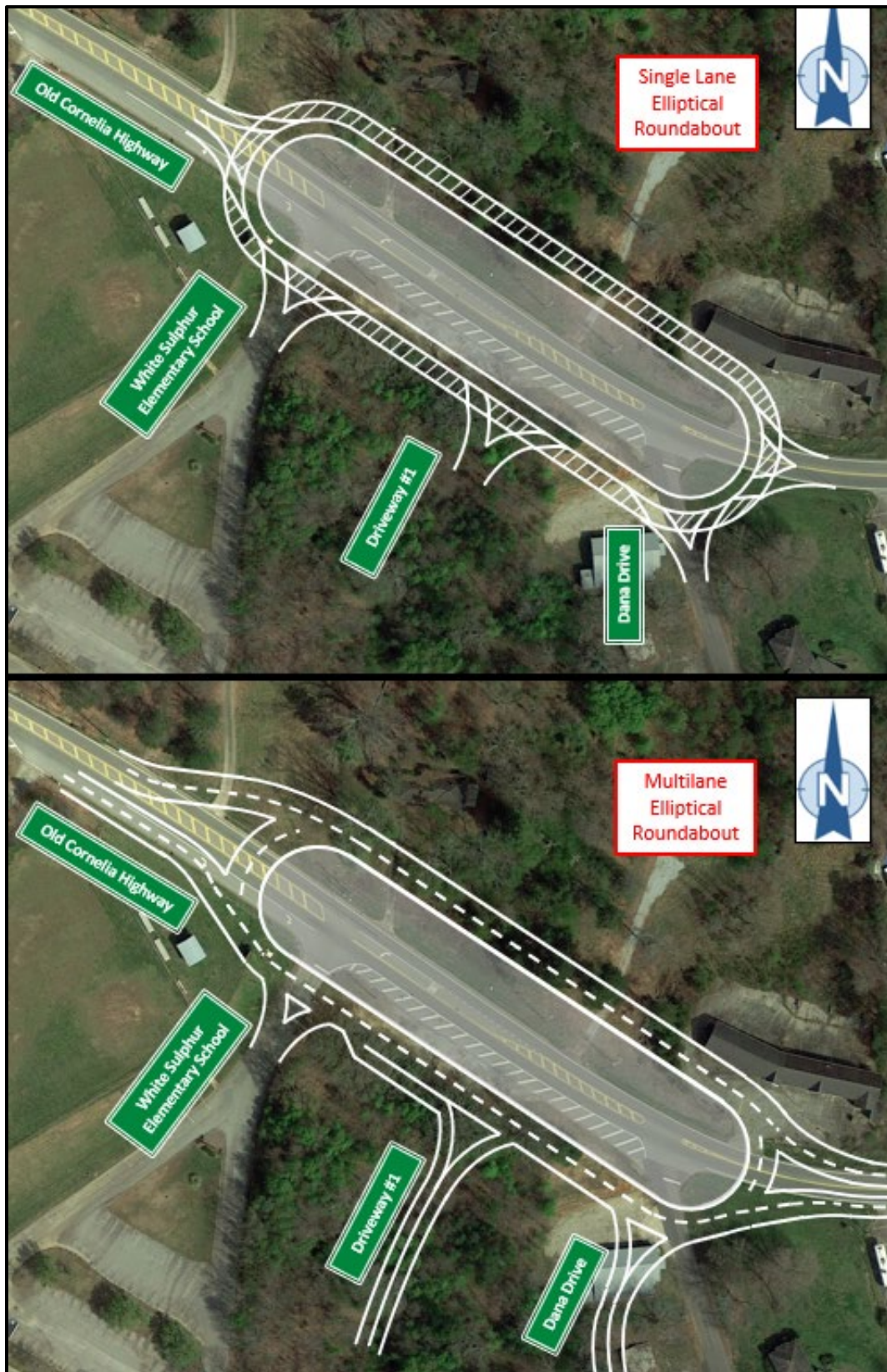


- Four Lane Geometry
  - Phase 1 (2025)
    - The multilane roundabout of White Sulphur Elementary School is projected to operate at LOS 'B' or better for all approaches during both peak hours.
    - The multilane roundabout of Driveway #1 is projected to operate at LOS 'A' for all approaches during both peak hours.
  - Phase 2 (2030)
    - The multilane roundabout of White Sulphur Elementary School is projected to operate at LOS 'C' or better for all approaches during both peak hours.
    - The multilane roundabout of Driveway #1 is projected to operate at LOS 'B' for all approaches during both peak hours.
  - Phase 3 (2035)
    - The multilane roundabout of White Sulphur Elementary School is projected to operate at LOS 'C' or better for all approaches during both peak hours.
    - The multilane roundabout of Driveway #1 is projected to operate at LOS 'B' for all approaches during both peak hours.

### **ALTERNATIVE C: ELLIPTICAL ROUNDABOUT**

The third consolidation alternative evaluated was an elliptical roundabout. With this alternative, the roundabout retains three northbound approaches that connect to a single large roundabout. In order to distinct the three northbound approaches, White Sulphur Elementary School is defined as the northeast approach, Driveway #1 is defined as the northbound approach, and Dana Drive is defined as the northwest approach. This alternative was evaluated as a single lane roundabout with the existing geometry, and multilane roundabout with the widened four lane geometry. Figure 26 on the following page shows the elliptical roundabout configuration with the existing and four lane geometry.

Figure 26: ELLIPTICAL ROUNDABOUT



The capacity analysis results for the site driveway are provided in Tables 40 and 41.

**Table 40: CAPACITY ANALYSIS RESULTS – ALTERNATIVE C (TWO LANE GEOMETRY)**

| INTERSECTION                                                                        | MOVEMENT | PHASE 1 (2025)  |                  | PHASE 2 (2030)   |                  | PHASE 3 (2035)   |                  |
|-------------------------------------------------------------------------------------|----------|-----------------|------------------|------------------|------------------|------------------|------------------|
|                                                                                     |          | AM PEAK HOUR    | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     | AM PEAK HOUR     | PM PEAK HOUR     |
| Old Cornelia Hwy @<br>White Sulphur<br>Elementary School /<br>Driveway #1 / Dana Dr | EBT/R    | B (10.7)        | <b>F (154.0)</b> | B (11.2)         | <b>F (230.6)</b> | B (12.3)         | <b>F (343.0)</b> |
|                                                                                     | WBL/T    | <b>F (55.4)</b> | B (11.1)         | <b>F (183.0)</b> | B (13.8)         | <b>F (238.6)</b> | C (19.3)         |
|                                                                                     | NEBL/R   | A (7.0)         | C (16.9)         | A (7.6)          | C (17.0)         | A (8.6)          | C (17.1)         |
|                                                                                     | NBL/R    | C (20.8)        | <b>E (36.8)</b>  | <b>E (41.3)</b>  | <b>E (43.8)</b>  | <b>F (117.6)</b> | <b>E (48.4)</b>  |
|                                                                                     | NWBL/R   | A (7.5)         | A (9.5)          | B (10.2)         | A (9.4)          | B (12.8)         | A (9.1)          |

**Table 41: CAPACITY ANALYSIS RESULTS – ALTERNATIVE C (FOUR LANE GEOMETRY)**

| INTERSECTION                                                                        | MOVEMENT | PHASE 1 (2025) |              | PHASE 2 (2030) |              | PHASE 3 (2035) |              |
|-------------------------------------------------------------------------------------|----------|----------------|--------------|----------------|--------------|----------------|--------------|
|                                                                                     |          | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR | AM PEAK HOUR   | PM PEAK HOUR |
| Old Cornelia Hwy @<br>White Sulphur<br>Elementary School /<br>Driveway #1 / Dana Dr | EBT/R    | A (6.0)        | B (12.9)     | A (6.5)        | C (16.4)     | A (7.1)        | D (25.4)     |
|                                                                                     | WBL/T    | A (9.6)        | A (6.1)      | B (14.2)       | A (6.7)      | C (19.6)       | A (7.7)      |
|                                                                                     | NEBL/R   | A (4.7)        | A (6.2)      | A (4.9)        | A (7.3)      | A (5.2)        | A (9.7)      |
|                                                                                     | NBL/R    | A (6.8)        | A (9.1)      | A (7.8)        | B (11.4)     | A (9.1)        | C (16.6)     |
|                                                                                     | NWBL/R   | A (4.3)        | A (4.8)      | A (4.4)        | A (5.2)      | A (4.6)        | A (6.0)      |

Capacity results of the elliptical roundabout indicate the following:

- Existing Geometry
  - Phase 1 (2025)
    - The westbound approach is projected to operate at LOS 'F' in the AM Peak Hour.
    - The eastbound approach is projected to operate at LOS 'F' in the PM Peak Hour.
    - The northbound approach of Driveway #1 is projected to operate at LOS 'E' in the PM Peak Hour.
  - Phase 2 (2030)
    - The westbound approach is projected to operate at LOS 'F' in the AM Peak Hour.
    - The eastbound approach is projected to operate at LOS 'F' in the PM Peak Hour.
    - The northbound approach of Driveway #1 is projected to operate at LOS 'E' for both peak hours.
  - Phase 3 (2035)
    - The westbound approach is projected to operate at LOS 'F' in the AM Peak Hour.
    - The eastbound approach is projected to operate at LOS 'F' in the PM Peak Hour.
    - The northbound approach of Driveway #1 is projected to operate at LOS 'E' or worse for both peak hours.
- Four Lane Geometry
  - Phase 1 (2025)
    - The elliptical roundabout is projected to operate at LOS 'B' or better on all approaches for both peak hours.
  - Phase 2 (2030)
    - The elliptical roundabout is projected to operate at LOS 'C' or better on all approaches for both peak hours.
  - Phase 3 (2035)
    - The elliptical roundabout is projected to operate at LOS 'D' or better on all approaches for both peak hours.



## SUMMARY OF FINDINGS

- The Sussex development is a residential development on approximately 472 acres. The site plan provides for 1,226 single-family homes, 924 multi-family homes, 190 townhomes, and a youth baseball park.
- A long range widening project on Old Cornelia Highway between Jesse Jewell Parkway and Joe Chandler Highway scheduled to begin construction in 2051.
- The development is proposed to initially have one access on Old Cornelia Highway between White Sulphur Elementary School and Dana Drive, with two future entrances planned on Old Cornelia Highway south of Jesse Jewell Parkway and Floyd Road. It was assumed that a second access point on Old Cornelia Highway would be open by 2030, and a third access point on Floyd Road would be open by 2035.
- The development is projected to be constructed at a rate of 160 homes per year, and is anticipated to be built-out by 2035. The three phases evaluated in the study were Phase 1 (2025), Phase 2 (2030), and Phase 3 (2035).
- Turning movement count data was collected at the study intersections on Wednesday, February 17, 2021. The AM Peak Hour was observed to be 7:15 to 8:15 AM, and the PM Peak Hour was observed to be 4:45 to 5:45 PM.
- Bi-directional 24-hour traffic data was collected on SR 14 on Wednesday, February 17, 2021.
  - Eastbound: 85<sup>th</sup> percentile speed of 46 mph, traffic volume of 6,476 vehicles per day, and truck percentage of 4.4%
  - Westbound: 85<sup>th</sup> percentile speed of 44 mph, traffic volume of 6,974 vehicles per day, and truck percentage of 5.3%
- Due to the COVID-19 pandemic, turning movement data was compared to a nearby GDOT count station (139-0210) in order to determine how the pandemic was affecting traffic patterns. It was determined that the collected data experienced a reduction of approximately 9%.
- Crash data at the study intersections indicates that of the 29 crashes that occurred between 2016-2020 right angle collisions were the most common crash, accounting for 31% of the total.
- Based on the Atlanta Regional Commission's population forecast for Hall County, the census data from the Hall County Strategic Plan, and the trend analysis for nearby GDOT Count Stations, an annual growth rate of 1.5% was established between the Existing Year (2021) to the Phase 3 Build Year.

- With the full build out in Phase 3 (2035), the residential development is projected to generate 18,535 net daily trips, with 1,381 trips (349 entering, 1,032 exiting) in the AM Peak Hour and 1,821 trips (1,138 entering, 683 exiting) in the PM Peak Hour. Trip distribution for the new trips were based on the existing AM Peak Hour distribution.
- It was assumed that 100% of the trips would use the east access on Old Cornelia Highway in Phase 1 (2025), 80% of the trips in Phase 2 (2030), and 60% of the trips in Phase 3 (2035).
- Under Existing 2021 conditions, capacity analysis results indicate that the following intersections are experiencing unacceptable operation:
  - Old Cornelia Highway and Dana Drive, which currently operates at LOS 'E' on the northbound approach in the PM Peak Hour.
  - Old Cornelia Highway and White Sulphur Elementary School, which currently operates at LOS 'E' or worse on the northbound approach in both peak hours.
  - Old Cornelia Highway and Oconee Circle, which currently operates at LOS 'F' on the northbound approach in the PM Peak Hour.
- Under No-Build conditions, capacity analysis results indicate that the following intersections are projected to experience unacceptable operation:
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'E' on the northbound approach beginning in 2025.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'E' or worse on the northbound approach beginning in 2025.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'E' or worse on the northbound and southbound approaches beginning in 2025.
- Under Build conditions, capacity analysis results indicate that the following intersections are projected to experience unacceptable operation:
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'E' on the northbound approach beginning in 2025.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'F' on the northbound approach beginning in 2025.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'E' or worse on the northbound and southbound approaches beginning in 2025.
  - Old Cornelia Highway and Driveway #1, which is projected to operate at LOS 'F' on the northbound approach beginning in 2025 and the westbound approach beginning in 2035.

- The No-Build and Build Conditions were also evaluated with widening on Old Cornelia Highway from two lanes to four lanes. Under No-Build conditions and with widening on Old Cornelia Highway, capacity analysis results indicate that the following intersections are projected to experience unacceptable operation:
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'E' on the northbound approach beginning in 2025.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'E' or worse on the northbound approach beginning in 2025.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'E' or worse on the northbound approach beginning in 2025 and the southbound approach beginning in 2035.
- Under Build conditions and with widening on Old Cornelia Highway capacity analysis results indicate that the following intersections are projected to experience unacceptable operation:
  - Old Cornelia Highway and Dana Drive, which is projected to operate at LOS 'E' on the northbound approach beginning in 2025.
  - Old Cornelia Highway and White Sulphur Elementary School, which is projected to operate at LOS 'F' on the northbound approach beginning in 2025.
  - Old Cornelia Highway and Oconee Circle, which is projected to operate at LOS 'E' or worse on the northbound and southbound approaches beginning in 2025.
  - Old Cornelia Highway and Driveway #1, which is projected to operate at LOS 'F' on the northbound approach beginning in 2025 and the westbound approach beginning in 2035.
- The intersection of Old Cornelia Highway and Driveway #1 was evaluated for alternative traffic control, with both existing geometry and four lane geometry. The following improvements were evaluated:
  - Minor Street Stop Control, with added turn lanes
  - Traffic Signal
  - Multilane Roundabout
- Under Build conditions with turn lane improvements at the intersection of Old Cornelia Highway and Driveway #1:
  - With existing geometry, the northbound approach is projected to operate at LOS 'E' or worse beginning in 2025.
  - With the four lane widened geometry, the northbound left movement is projected to operate at LOS 'E' or worse beginning in 2025.

- Under Build conditions with signal control at the intersection of Old Cornelia Highway and Driveway #1:
  - With existing geometry, the signal is projected to operate at LOS 'C' in the AM Peak Hour and LOS 'E' in the PM Peak Hour in 2035.
  - With the four lane widened geometry, the signal is projected to operate at LOS 'B' for both peak hours in 2035.
- Under Build conditions with roundabout control at the intersection of Old Cornelia Highway and Driveway #1:
  - With a single lane roundabout, the intersection is projected to have several approaches that operate at LOS 'E' or worse for both peak hours in 2035.
  - With a multilane roundabout, the intersection is projected to operate at LOS 'C' or better on all approaches for both peak hours in 2035.
- All of the improvements evaluated at the intersection of Old Cornelia Highway and Driveway #1 operate poorly under projected conditions, or experience queuing that affects the adjacent intersections. Therefore, additional alternatives were evaluated to implement access control and improve the operation of the existing minor street stop controlled intersections.
  - Traffic Signal, with Dana Drive and White Sulphur Elementary School consolidated at the proposed location of Driveway #1
  - Dumbbell Roundabout, with Dana Drive consolidated with Driveway #1
  - Elliptical Roundabout
- Under Build conditions with signal control at the intersection of Old Cornelia Highway and the Consolidated Driveway:
  - With existing geometry, the signal is projected to operate at LOS 'C' in the AM Peak Hour and LOS 'F' in the PM Peak Hour in 2035.
  - With the four lane widened geometry, the signal is projected to operate at LOS 'B' for both peak hours in 2035.
- Under Build conditions with the dumbbell roundabout at the consolidated intersection of Old Cornelia Highway and White Sulphur Elementary School/Driveway #1/Dana Drive:
  - With a single lane dumbbell roundabout, the consolidated intersection is projected to have several approaches that operate at LOS 'E' or worse for both peak hours in 2035.
  - With a multilane dumbbell roundabout, the consolidated intersection is projected to operate at LOS 'C' or better on all approaches for both peak hours in 2035.

- Under Build conditions with the elliptical roundabout at the consolidated intersection of Old Cornelia Highway and White Sulphur Elementary School/Driveway #1/Dana Drive:
  - With a single lane elliptical roundabout, the consolidated intersection is projected to have several approaches that operate at LOS 'E' or worse for both peak hours in 2035.
  - With a multilane elliptical roundabout, the consolidated intersection is projected to operate at LOS 'D' or better on all approaches for both peak hours in 2035.



## CONCLUSION

Based on the findings in this study, any improvements implemented at Driveway #1 on Old Cornelia Highway could not be implemented without adversely affecting the adjacent intersections. Therefore, three alternatives were evaluated that would also address the operation of White Sulphur Elementary School and Dana Drive.

Alternative A operates at LOS 'D' with the existing geometry through 2030. However this alternative requires all of the driveways to be consolidated and connect on the development roadway, which will be difficult to implement given the terrain of the site.

Alternatives B and C have movements that operate at LOS 'E' or worse on several movements in 2025, but are more feasible forms of traffic control for the site driveway and the existing adjacent intersections.

It is recommended that the roadway of Old Cornelia Highway be widened to four lanes to accommodate for these Alternatives. A long range project is currently planned for widening, but the background growth of the roadway coupled with the development volume exacerbate the need for the project. The developer should work with GDOT for widening project, while the developer will be solely responsible for the selected Alternative.

The intersection of Old Cornelia Road and Oconee Circle is currently experiencing unacceptable LOS before adding the project volumes, and improvements should be implemented by local officials.

Figure 27 through 29 on the following pages show each of the three recommended Alternatives.

Figure 27: ALTERNATIVE A



Figure 28: ALTERNATIVE B

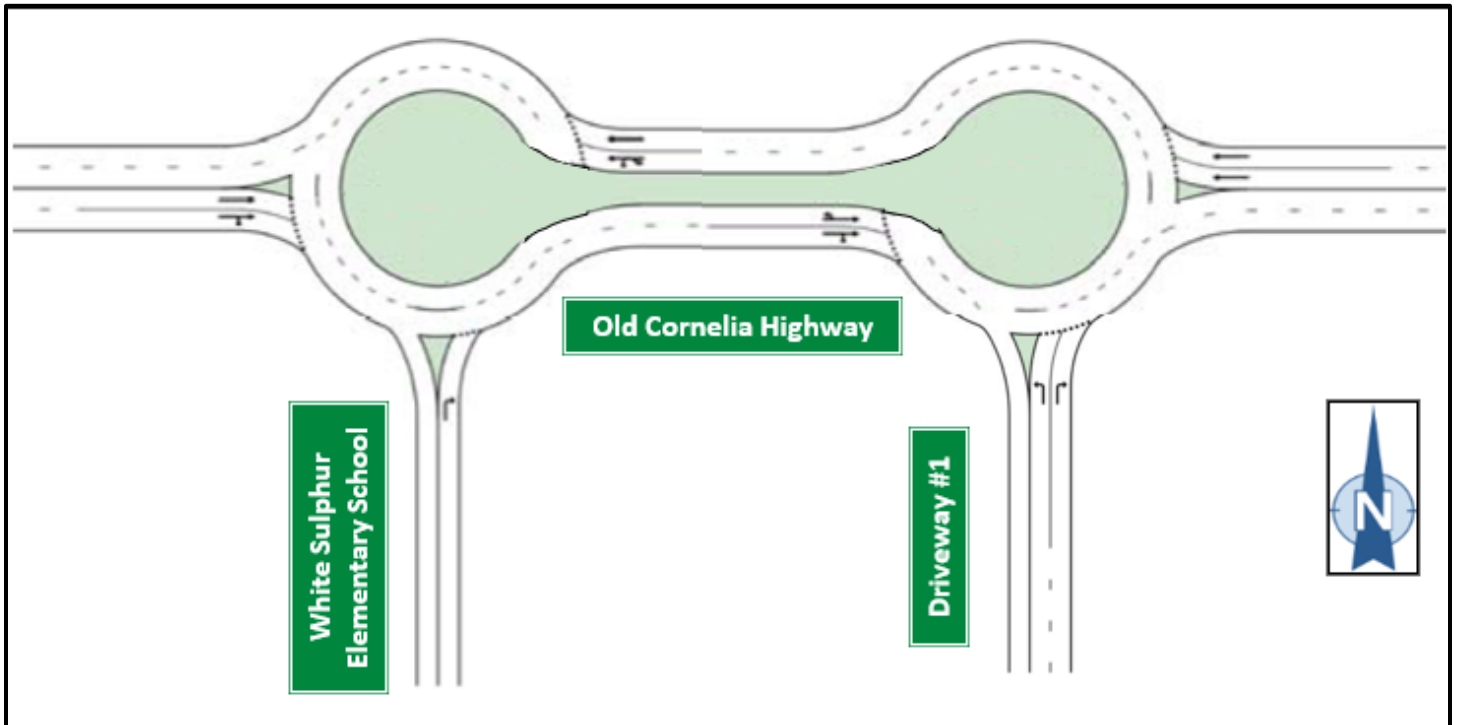
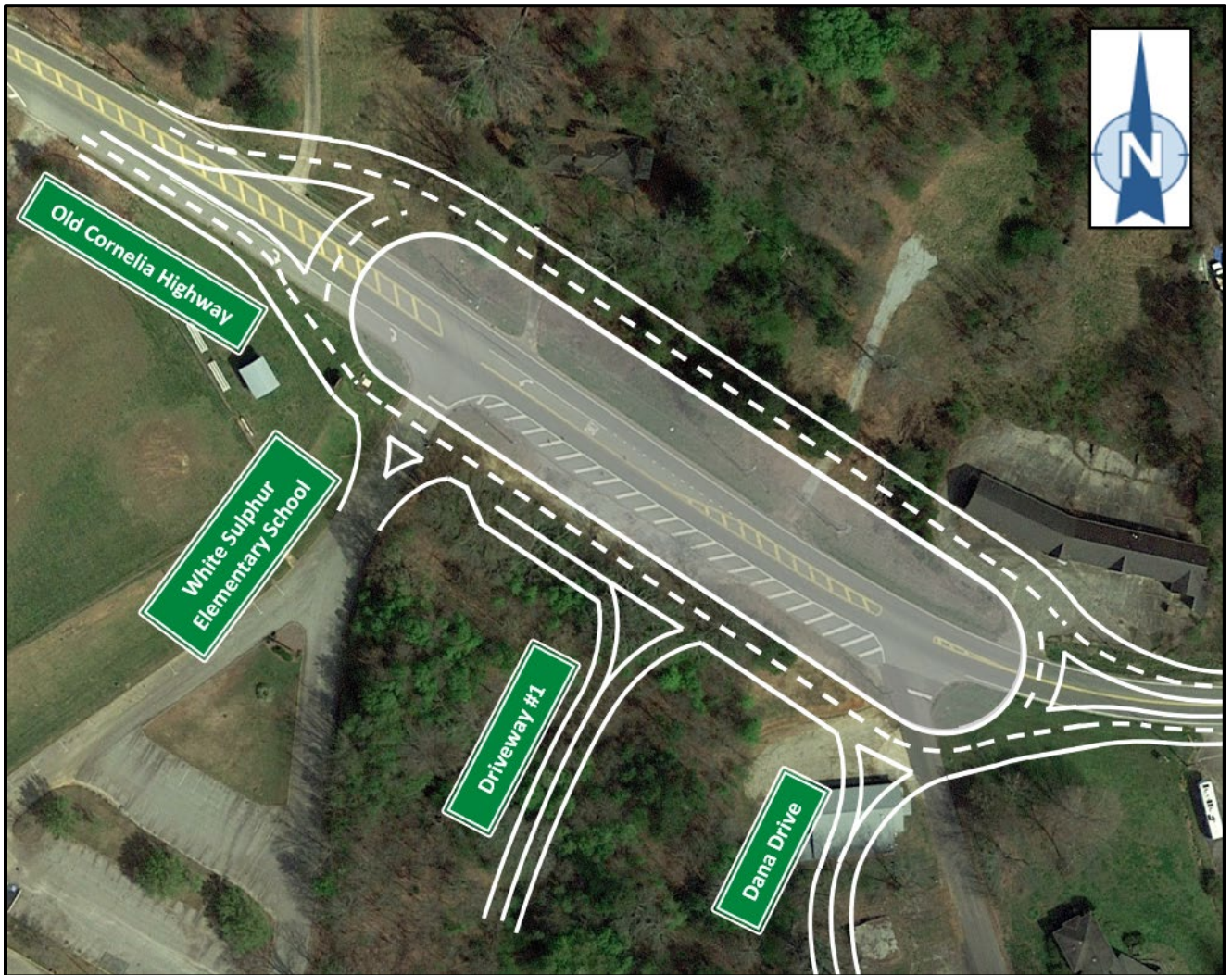


FIGURE 29 : ALTERNATIVE C



## APPENDICES

|                                                                       |   |
|-----------------------------------------------------------------------|---|
| SITE PLAN .....                                                       | A |
| TURNING MOVEMENT COUNT DATA .....                                     | B |
| ATR DATA .....                                                        | C |
| GDOT COUNT STATION DATA .....                                         | D |
| CRASH DATA.....                                                       | E |
| HALL COUNTY STRATEGIC PLAN .....                                      | F |
| ARC POPULATION FORECAST .....                                         | G |
| TRIP GENERATION DATA.....                                             | H |
| CAPACITY ANALYSIS REPORTS, EXITING CONDITIONS .....                   | I |
| CAPACITY ANALYSIS REPORTS, NO-BUILD CONDITIONS.....                   | J |
| CAPACITY ANALYSIS REPORTS, BUILD CONDITIONS .....                     | K |
| CAPACITY ANALYSIS REPORTS, WIDENING CONDITIONS .....                  | L |
| CAPACITY ANALYSIS REPORTS, DRIVEWAY #1 IMPROVEMENTS .....             | M |
| CAPACITY ANALYSIS REPORTS, DRIVEWAY #1 CONSOLIDATED IMPROVEMENTS..... | N |

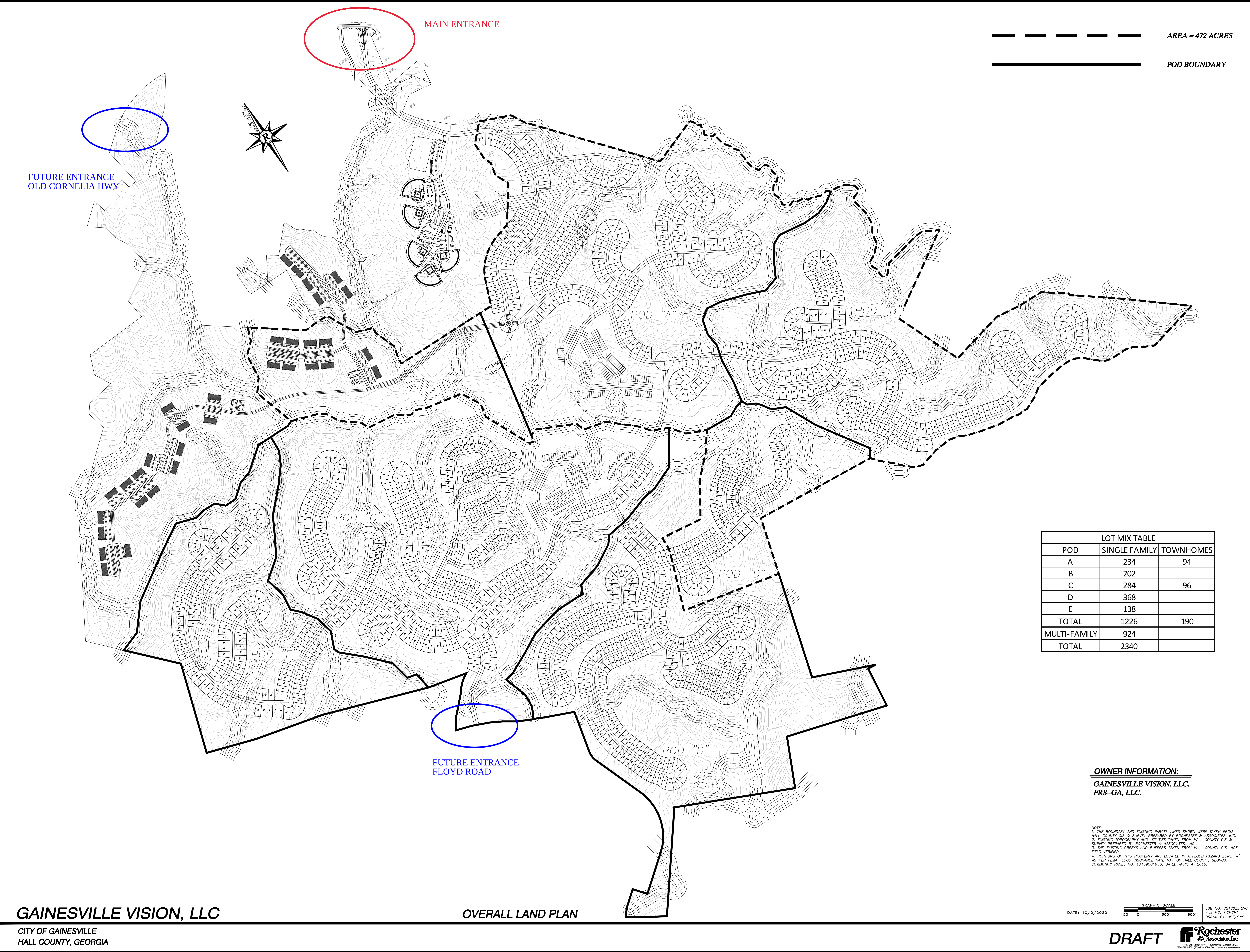


## APPENDIX A

### SITE PLAN









## APPENDIX B

### TURNING MOVEMENT COUNT DATA





ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

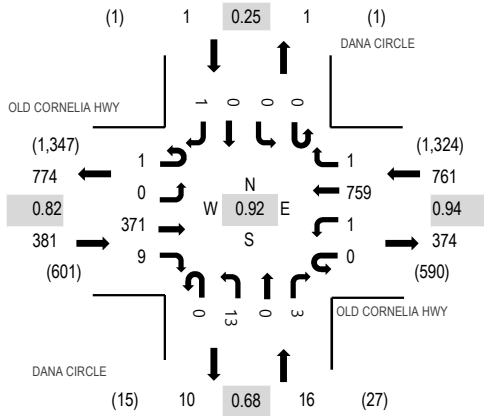
**Location:** #1 DANA CIRCLE & OLD CORNELIA HWY AM

**Date:** Wednesday, February 17, 2021

**Peak Hour:** 07:15 AM - 08:15 AM

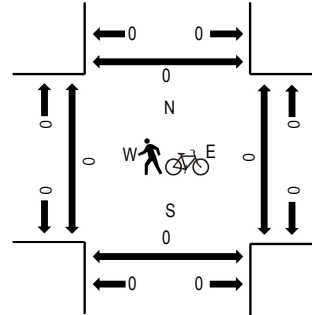
**Peak 15-Minutes:** 07:30 AM - 07:45 AM

### Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

### Peak Hour - Pedestrians/Bicycles in Crosswalk



### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | OLD CORNELIA HWY<br>Eastbound |      |      |       | OLD CORNELIA HWY<br>Westbound |      |      |       | DANA CIRCLE<br>Northbound |      |      |       | DANA CIRCLE<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|-------------------------------|------|------|-------|-------------------------------|------|------|-------|---------------------------|------|------|-------|---------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn                        | Left | Thru | Right | U-Turn                        | Left | Thru | Right | U-Turn                    | Left | Thru | Right | U-Turn                    | Left | Thru | Right |       |                 | West                 | East | South | North |
| 7:00 AM                | 0                             | 0    | 37   | 0     | 0                             | 1    | 192  | 0     | 0                         | 0    | 5    | 0     | 0                         | 0    | 0    | 0     | 235   | 1,145           | 0                    | 0    | 0     | 0     |
| 7:15 AM                | 0                             | 0    | 95   | 3     | 0                             | 0    | 184  | 0     | 0                         | 7    | 0    | 0     | 0                         | 0    | 0    | 0     | 289   | 1,159           | 0                    | 0    | 0     | 0     |
| 7:30 AM                | 0                             | 0    | 114  | 2     | 0                             | 0    | 195  | 0     | 0                         | 2    | 0    | 1     | 0                         | 0    | 0    | 0     | 314   | 1,090           | 0                    | 0    | 0     | 0     |
| 7:45 AM                | 0                             | 0    | 93   | 4     | 0                             | 1    | 204  | 1     | 0                         | 2    | 0    | 2     | 0                         | 0    | 0    | 0     | 307   | 956             | 0                    | 0    | 0     | 0     |
| 8:00 AM                | 1                             | 0    | 69   | 0     | 0                             | 0    | 176  | 0     | 0                         | 2    | 0    | 0     | 0                         | 0    | 0    | 1     | 249   | 808             | 0                    | 0    | 0     | 0     |
| 8:15 AM                | 0                             | 0    | 62   | 1     | 0                             | 0    | 155  | 0     | 0                         | 2    | 0    | 0     | 0                         | 0    | 0    | 0     | 220   |                 | 0                    | 0    | 0     | 0     |
| 8:30 AM                | 0                             | 0    | 56   | 2     | 0                             | 0    | 120  | 0     | 0                         | 2    | 0    | 0     | 0                         | 0    | 0    | 0     | 180   |                 | 0                    | 0    | 0     | 0     |
| 8:45 AM                | 0                             | 0    | 61   | 1     | 0                             | 0    | 95   | 0     | 0                         | 2    | 0    | 0     | 0                         | 0    | 0    | 0     | 159   |                 | 0                    | 0    | 0     | 0     |

### Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 2    | 0     | 0         | 0    | 1    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 3     |
| Lights             | 1         | 0    | 345  | 8     | 0         | 1    | 743  | 1     | 0          | 13   | 0    | 2     | 0          | 0    | 0    | 1     | 1,115 |
| Mediums            | 0         | 0    | 24   | 1     | 0         | 0    | 15   | 0     | 0          | 0    | 0    | 1     | 0          | 0    | 0    | 0     | 41    |
| Total              | 1         | 0    | 371  | 9     | 0         | 1    | 759  | 1     | 0          | 13   | 0    | 3     | 0          | 0    | 0    | 1     | 1,159 |



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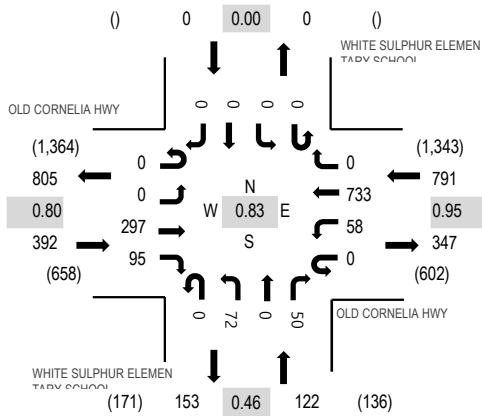
**Location:** #2 WHITE SULPHUR ELEMENTARY SCHOOL & OLD CORNELIA HWY AM

**Date:** Wednesday, February 17, 2021

**Peak Hour:** 07:00 AM - 08:00 AM

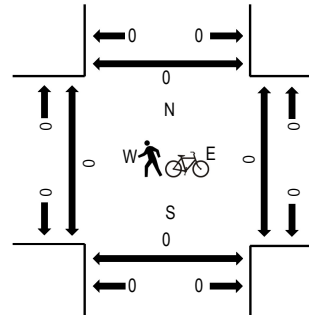
**Peak 15-Minutes:** 07:30 AM - 07:45 AM

### Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

### Peak Hour - Pedestrians/Bicycles in Crosswalk



### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | OLD CORNELIA HWY<br>Eastbound |      |      |       | OLD CORNELIA HWY<br>Westbound |      |      |       | WHITE SULPHUR<br>ELEMENTARY SCHOOL<br>Northbound |      |      |       | WHITE SULPHUR<br>ELEMENTARY SCHOOL<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|-------------------------------|------|------|-------|-------------------------------|------|------|-------|--------------------------------------------------|------|------|-------|--------------------------------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn                        | Left | Thru | Right | U-Turn                        | Left | Thru | Right | U-Turn                                           | Left | Thru | Right | U-Turn                                           | Left | Thru | Right |       |                 | West                 | East | South | North |
|                        |                               |      |      |       |                               |      |      |       |                                                  |      |      |       |                                                  |      |      |       |       |                 |                      |      |       |       |
| 7:00 AM                | 0                             | 0    | 37   | 35    | 0                             | 21   | 172  | 0     | 0                                                | 0    | 0    | 0     | 0                                                | 0    | 0    | 0     | 265   | 1,305           | 0                    | 0    | 0     | 0     |
| 7:15 AM                | 0                             | 0    | 69   | 23    | 0                             | 13   | 176  | 0     | 0                                                | 20   | 0    | 20    | 0                                                | 0    | 0    | 0     | 321   | 1,304           | 0                    | 0    | 0     | 0     |
| 7:30 AM                | 0                             | 0    | 92   | 31    | 0                             | 22   | 179  | 0     | 0                                                | 46   | 0    | 24    | 0                                                | 0    | 0    | 0     | 394   | 1,204           | 0                    | 0    | 0     | 0     |
| 7:45 AM                | 0                             | 0    | 99   | 6     | 0                             | 2    | 206  | 0     | 0                                                | 6    | 0    | 6     | 0                                                | 0    | 0    | 0     | 325   | 997             | 0                    | 0    | 0     | 0     |
| 8:00 AM                | 0                             | 0    | 70   | 6     | 0                             | 2    | 179  | 0     | 0                                                | 5    | 0    | 2     | 0                                                | 0    | 0    | 0     | 264   | 832             | 0                    | 1    | 0     | 0     |
| 8:15 AM                | 0                             | 0    | 64   | 1     | 0                             | 0    | 156  | 0     | 0                                                | 0    | 0    | 0     | 0                                                | 0    | 0    | 0     | 221   |                 | 0                    | 0    | 1     | 0     |
| 8:30 AM                | 0                             | 0    | 58   | 3     | 0                             | 0    | 122  | 0     | 0                                                | 4    | 0    | 0     | 0                                                | 0    | 0    | 0     | 187   |                 | 0                    | 0    | 0     | 0     |
| 8:45 AM                | 0                             | 0    | 61   | 3     | 0                             | 3    | 90   | 0     | 0                                                | 3    | 0    | 0     | 0                                                | 0    | 0    | 0     | 160   |                 | 0                    | 0    | 0     | 0     |

### Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 2    | 0     | 0         | 0    | 1    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 3     |
| Lights             | 0         | 0    | 282  | 91    | 0         | 54   | 722  | 0     | 0          | 65   | 0    | 45    | 0          | 0    | 0    | 0     | 1,259 |
| Mediums            | 0         | 0    | 13   | 4     | 0         | 4    | 10   | 0     | 0          | 7    | 0    | 5     | 0          | 0    | 0    | 0     | 43    |
| Total              | 0         | 0    | 297  | 95    | 0         | 58   | 733  | 0     | 0          | 72   | 0    | 50    | 0          | 0    | 0    | 0     | 1,305 |





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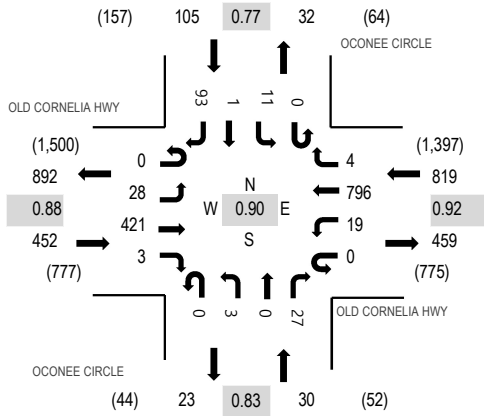
**Location:** #3 OCONEE CIRCLE & OLD CORNELIA HWY AM

**Date:** Wednesday, February 17, 2021

**Peak Hour:** 07:15 AM - 08:15 AM

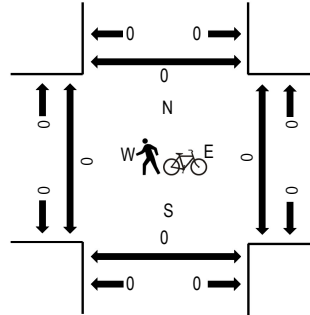
**Peak 15-Minutes:** 07:30 AM - 07:45 AM

### Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

### Peak Hour - Pedestrians/Bicycles in Crosswalk



### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | OLD CORNELIA HWY<br>Eastbound |      |      |       | OLD CORNELIA HWY<br>Westbound |      |      |       | OCONEE CIRCLE<br>Northbound |      |      |       | OCONEE CIRCLE<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|-------------------------------|------|------|-------|-------------------------------|------|------|-------|-----------------------------|------|------|-------|-----------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn                        | Left | Thru | Right | U-Turn                        | Left | Thru | Right | U-Turn                      | Left | Thru | Right | U-Turn                      | Left | Thru | Right |       |                 | West                 | East | South | North |
| 7:00 AM                | 0                             | 4    | 87   | 0     | 0                             | 6    | 159  | 0     | 0                           | 0    | 1    | 3     | 0                           | 0    | 0    | 12    | 272   | 1,364           | 0                    | 0    | 0     | 0     |
| 7:15 AM                | 0                             | 5    | 106  | 0     | 0                             | 6    | 182  | 0     | 0                           | 1    | 0    | 5     | 0                           | 6    | 0    | 28    | 339   | 1,406           | 0                    | 0    | 0     | 0     |
| 7:30 AM                | 0                             | 9    | 119  | 0     | 0                             | 4    | 216  | 3     | 0                           | 1    | 0    | 9     | 0                           | 4    | 1    | 24    | 390   | 1,332           | 0                    | 0    | 0     | 0     |
| 7:45 AM                | 0                             | 4    | 102  | 2     | 0                             | 1    | 219  | 1     | 0                           | 1    | 0    | 8     | 0                           | 1    | 0    | 24    | 363   | 1,172           | 0                    | 0    | 0     | 0     |
| 8:00 AM                | 0                             | 10   | 94   | 1     | 0                             | 8    | 179  | 0     | 0                           | 0    | 0    | 5     | 0                           | 0    | 0    | 17    | 314   | 1,019           | 0                    | 0    | 0     | 0     |
| 8:15 AM                | 0                             | 11   | 67   | 2     | 0                             | 2    | 163  | 2     | 0                           | 1    | 1    | 7     | 0                           | 2    | 0    | 7     | 265   |                 | 0                    | 0    | 0     | 0     |
| 8:30 AM                | 0                             | 7    | 72   | 0     | 0                             | 2    | 134  | 0     | 0                           | 1    | 0    | 0     | 0                           | 1    | 1    | 12    | 230   |                 | 0                    | 0    | 0     | 0     |
| 8:45 AM                | 0                             | 5    | 69   | 1     | 0                             | 5    | 105  | 0     | 0                           | 1    | 1    | 6     | 0                           | 2    | 2    | 13    | 210   |                 | 0                    | 0    | 0     | 0     |

### Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 4    | 0     | 0         | 0    | 2    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 6     |
| Lights             | 0         | 28   | 401  | 3     | 0         | 18   | 777  | 4     | 0          | 3    | 0    | 27    | 0          | 11   | 1    | 93    | 1,366 |
| Mediums            | 0         | 0    | 16   | 0     | 0         | 1    | 17   | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 34    |
| Total              | 0         | 28   | 421  | 3     | 0         | 19   | 796  | 4     | 0          | 3    | 0    | 27    | 0          | 11   | 1    | 93    | 1,406 |



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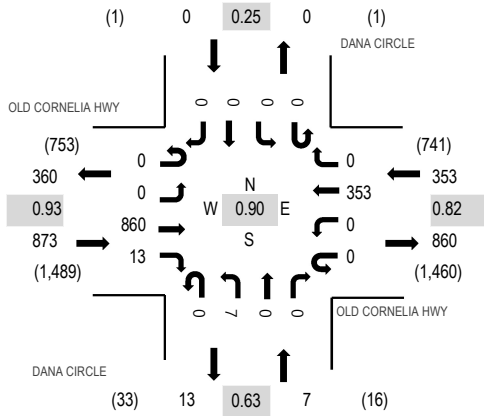
**Location:** #1 DANA CIRCLE & OLD CORNELIA HWY PM

**Date:** Wednesday, February 17, 2021

**Peak Hour:** 04:45 PM - 05:45 PM

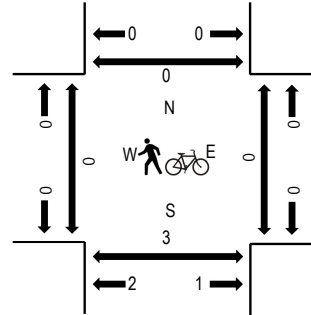
**Peak 15-Minutes:** 05:15 PM - 05:30 PM

### Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

### Peak Hour - Pedestrians/Bicycles in Crosswalk



### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | OLD CORNELIA HWY<br>Eastbound |      |      |       | OLD CORNELIA HWY<br>Westbound |      |      |       | DANA CIRCLE<br>Northbound |      |      |       | DANA CIRCLE<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|-------------------------------|------|------|-------|-------------------------------|------|------|-------|---------------------------|------|------|-------|---------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn                        | Left | Thru | Right | U-Turn                        | Left | Thru | Right | U-Turn                    | Left | Thru | Right | U-Turn                    | Left | Thru | Right |       |                 | West                 | East | South | North |
| 4:30 PM                | 0                             | 0    | 174  | 5     | 0                             | 1    | 87   | 1     | 0                         | 3    | 0    | 1     | 0                         | 0    | 0    | 0     | 273   | 1,227           | 0                    | 0    | 0     | 0     |
| 4:45 PM                | 0                             | 0    | 182  | 5     | 0                             | 0    | 87   | 0     | 0                         | 3    | 0    | 0     | 0                         | 0    | 0    | 0     | 277   | 1,233           | 0                    | 0    | 0     | 0     |
| 5:00 PM                | 0                             | 0    | 232  | 3     | 0                             | 0    | 98   | 0     | 0                         | 1    | 0    | 0     | 0                         | 0    | 0    | 0     | 334   | 1,232           | 0                    | 0    | 0     | 0     |
| 5:15 PM                | 0                             | 0    | 229  | 3     | 0                             | 0    | 109  | 0     | 0                         | 2    | 0    | 0     | 0                         | 0    | 0    | 0     | 343   | 1,165           | 0                    | 0    | 0     | 0     |
| 5:30 PM                | 0                             | 0    | 217  | 2     | 0                             | 0    | 59   | 0     | 0                         | 1    | 0    | 0     | 0                         | 0    | 0    | 0     | 279   | 1,020           | 0                    | 0    | 3     | 0     |
| 5:45 PM                | 0                             | 0    | 169  | 5     | 0                             | 0    | 102  | 0     | 0                         | 0    | 0    | 0     | 0                         | 0    | 0    | 0     | 276   |                 | 0                    | 0    | 2     | 0     |
| 6:00 PM                | 0                             | 0    | 140  | 5     | 0                             | 0    | 119  | 0     | 0                         | 3    | 0    | 0     | 0                         | 0    | 0    | 0     | 267   |                 | 0                    | 0    | 0     | 0     |
| 6:15 PM                | 0                             | 0    | 115  | 3     | 0                             | 1    | 77   | 0     | 0                         | 1    | 0    | 1     | 0                         | 0    | 0    | 0     | 198   |                 | 0                    | 0    | 0     | 0     |

### Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 1    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 1     |
| Lights             | 0         | 0    | 851  | 12    | 0         | 0    | 348  | 0     | 0          | 6    | 0    | 0     | 0          | 0    | 0    | 0     | 1,217 |
| Mediums            | 0         | 0    | 8    | 1     | 0         | 0    | 5    | 0     | 0          | 1    | 0    | 0     | 0          | 0    | 0    | 0     | 15    |
| Total              | 0         | 0    | 860  | 13    | 0         | 0    | 353  | 0     | 0          | 7    | 0    | 0     | 0          | 0    | 0    | 0     | 1,233 |





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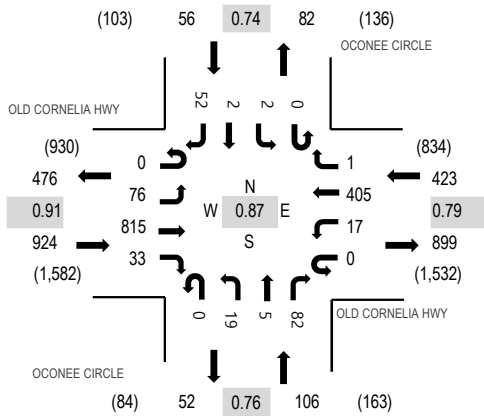
Location: #3 OCONEE CIRCLE & OLD CORNELIA HWY PM

Date: Wednesday, February 17, 2021

Peak Hour: 04:45 PM - 05:45 PM

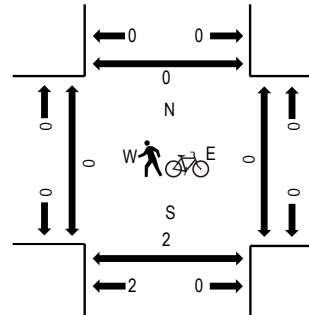
Peak 15-Minutes: 05:15 PM - 05:30 PM

### Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

### Peak Hour - Pedestrians/Bicycles in Crosswalk



### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | OLD CORNELIA HWY<br>Eastbound |      |      |       | OLD CORNELIA HWY<br>Westbound |      |      |       | OCONEE CIRCLE<br>Northbound |      |      |       | OCONEE CIRCLE<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|-------------------------------|------|------|-------|-------------------------------|------|------|-------|-----------------------------|------|------|-------|-----------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn                        | Left | Thru | Right | U-Turn                        | Left | Thru | Right | U-Turn                      | Left | Thru | Right | U-Turn                      | Left | Thru | Right |       |                 | West                 | East | South | North |
| 4:30 PM                | 0                             | 11   | 185  | 7     | 1                             | 4    | 90   | 0     | 0                           | 7    | 1    | 10    | 0                           | 2    | 0    | 10    | 328   | 1,490           | 0                    | 0    | 0     | 0     |
| 4:45 PM                | 0                             | 17   | 174  | 4     | 0                             | 4    | 102  | 0     | 0                           | 5    | 0    | 16    | 0                           | 0    | 2    | 9     | 333   | 1,509           | 0                    | 0    | 0     | 0     |
| 5:00 PM                | 0                             | 23   | 222  | 8     | 0                             | 1    | 99   | 1     | 0                           | 4    | 3    | 19    | 0                           | 0    | 0    | 15    | 395   | 1,484           | 0                    | 0    | 0     | 0     |
| 5:15 PM                | 0                             | 17   | 225  | 10    | 0                             | 7    | 133  | 0     | 0                           | 4    | 1    | 19    | 0                           | 1    | 0    | 17    | 434   | 1,395           | 0                    | 0    | 0     | 0     |
| 5:30 PM                | 0                             | 19   | 194  | 11    | 0                             | 5    | 71   | 0     | 0                           | 6    | 1    | 28    | 0                           | 1    | 0    | 11    | 347   | 1,192           | 0                    | 0    | 2     | 0     |
| 5:45 PM                | 0                             | 12   | 162  | 2     | 0                             | 1    | 104  | 1     | 0                           | 5    | 0    | 12    | 0                           | 0    | 0    | 9     | 308   |                 | 0                    | 0    | 0     | 0     |
| 6:00 PM                | 0                             | 12   | 136  | 5     | 0                             | 7    | 111  | 0     | 0                           | 4    | 1    | 10    | 0                           | 3    | 0    | 17    | 306   |                 | 0                    | 0    | 0     | 0     |
| 6:15 PM                | 0                             | 16   | 106  | 4     | 0                             | 2    | 90   | 0     | 0                           | 1    | 0    | 6     | 0                           | 0    | 0    | 6     | 231   |                 | 0                    | 0    | 0     | 0     |

### Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 1    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 1     |
| Lights             | 0         | 75   | 804  | 33    | 0         | 17   | 399  | 1     | 0          | 19   | 5    | 82    | 0          | 2    | 2    | 52    | 1,491 |
| Mediums            | 0         | 1    | 10   | 0     | 0         | 0    | 6    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 17    |
| Total              | 0         | 76   | 815  | 33    | 0         | 17   | 405  | 1     | 0          | 19   | 5    | 82    | 0          | 2    | 2    | 52    | 1,509 |

## APPENDIX C

ATR DATA





# All Traffic Data Services

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Page 1

Site Code: 1

Station ID: 1

OLD CORNEILIA HWY WEST OF OCONEE CIRCLE

Latitude: 0' 0.0000 Undefined

Longitude: 0' 0.0000 Undefined

EB

| Start Time | 15 | 16 | 21 | 26 | 31 | 36  | 41  | 46  | 51 | 56 | 61 | 66 | 71  | 76 | Total |
|------------|----|----|----|----|----|-----|-----|-----|----|----|----|----|-----|----|-------|
|            | 20 | 25 | 30 | 35 | 40 | 45  | 50  | 55  | 60 | 65 | 70 | 75 | 999 |    |       |
| 02/17/21   | 0  | 0  | 0  | 0  | 1  | 1   | 5   | 2   | 0  | 0  | 0  | 0  | 0   | 0  | 9     |
| 00:15      | 0  | 0  | 0  | 0  | 0  | 0   | 3   | 1   | 2  | 0  | 0  | 0  | 0   | 0  | 6     |
| 00:30      | 0  | 0  | 0  | 1  | 0  | 0   | 3   | 3   | 0  | 0  | 0  | 0  | 0   | 0  | 7     |
| 00:45      | 0  | 0  | 0  | 0  | 0  | 3   | 2   | 1   | 0  | 0  | 0  | 0  | 0   | 0  | 6     |
|            | 0  | 0  | 0  | 1  | 1  | 4   | 13  | 7   | 2  | 0  | 0  | 0  | 0   | 0  | 28    |
| 01:00      | 0  | 0  | 0  | 0  | 1  | 1   | 3   | 0   | 0  | 0  | 0  | 0  | 0   | 0  | 5     |
| 01:15      | 0  | 0  | 0  | 1  | 0  | 1   | 3   | 4   | 1  | 1  | 0  | 0  | 0   | 0  | 11    |
| 01:30      | 0  | 0  | 0  | 0  | 1  | 0   | 3   | 1   | 0  | 0  | 0  | 0  | 0   | 0  | 5     |
| 01:45      | 0  | 0  | 0  | 0  | 0  | 0   | 4   | 0   | 0  | 0  | 0  | 0  | 0   | 0  | 4     |
|            | 0  | 0  | 0  | 1  | 2  | 2   | 13  | 5   | 1  | 1  | 0  | 0  | 0   | 0  | 25    |
| 02:00      | 0  | 0  | 0  | 1  | 1  | 1   | 1   | 0   | 0  | 0  | 0  | 0  | 0   | 0  | 4     |
| 02:15      | 0  | 0  | 0  | 0  | 1  | 1   | 3   | 1   | 0  | 0  | 0  | 0  | 0   | 0  | 6     |
| 02:30      | 0  | 0  | 0  | 1  | 0  | 0   | 3   | 1   | 1  | 0  | 0  | 0  | 0   | 0  | 6     |
| 02:45      | 0  | 0  | 0  | 0  | 1  | 2   | 2   | 1   | 1  | 0  | 0  | 0  | 0   | 0  | 7     |
|            | 0  | 0  | 0  | 2  | 3  | 4   | 9   | 3   | 2  | 0  | 0  | 0  | 0   | 0  | 23    |
| 03:00      | 0  | 0  | 0  | 0  | 1  | 1   | 1   | 0   | 0  | 0  | 0  | 0  | 0   | 0  | 3     |
| 03:15      | 0  | 0  | 0  | 0  | 0  | 2   | 0   | 0   | 0  | 0  | 0  | 0  | 0   | 0  | 2     |
| 03:30      | 0  | 0  | 0  | 0  | 0  | 1   | 0   | 3   | 1  | 0  | 0  | 0  | 0   | 0  | 5     |
| 03:45      | 0  | 0  | 0  | 0  | 0  | 2   | 2   | 0   | 0  | 0  | 0  | 0  | 0   | 0  | 4     |
|            | 0  | 0  | 0  | 0  | 1  | 6   | 3   | 3   | 1  | 0  | 0  | 0  | 0   | 0  | 14    |
| 04:00      | 0  | 0  | 0  | 0  | 0  | 4   | 0   | 1   | 0  | 0  | 0  | 0  | 0   | 0  | 5     |
| 04:15      | 0  | 0  | 0  | 0  | 0  | 0   | 2   | 0   | 0  | 0  | 0  | 0  | 0   | 0  | 2     |
| 04:30      | 1  | 1  | 0  | 0  | 1  | 1   | 1   | 1   | 2  | 0  | 0  | 0  | 0   | 0  | 8     |
| 04:45      | 0  | 0  | 0  | 1  | 0  | 2   | 4   | 0   | 1  | 0  | 0  | 0  | 0   | 0  | 8     |
|            | 1  | 1  | 0  | 1  | 1  | 7   | 7   | 2   | 3  | 0  | 0  | 0  | 0   | 0  | 23    |
| 05:00      | 0  | 0  | 0  | 0  | 2  | 2   | 12  | 0   | 0  | 0  | 0  | 0  | 0   | 0  | 16    |
| 05:15      | 0  | 0  | 0  | 0  | 2  | 4   | 5   | 2   | 0  | 0  | 0  | 0  | 0   | 0  | 13    |
| 05:30      | 0  | 0  | 0  | 0  | 0  | 5   | 6   | 9   | 1  | 0  | 0  | 0  | 0   | 0  | 21    |
| 05:45      | 0  | 0  | 0  | 1  | 3  | 4   | 11  | 4   | 0  | 0  | 0  | 0  | 0   | 0  | 23    |
|            | 0  | 0  | 0  | 1  | 7  | 15  | 34  | 15  | 1  | 0  | 0  | 0  | 0   | 0  | 73    |
| 06:00      | 1  | 0  | 0  | 0  | 1  | 8   | 15  | 5   | 3  | 0  | 0  | 0  | 0   | 0  | 33    |
| 06:15      | 0  | 0  | 0  | 0  | 2  | 10  | 16  | 9   | 2  | 0  | 0  | 0  | 0   | 0  | 39    |
| 06:30      | 1  | 0  | 0  | 0  | 2  | 5   | 18  | 20  | 3  | 0  | 0  | 0  | 0   | 0  | 49    |
| 06:45      | 2  | 0  | 0  | 0  | 3  | 24  | 35  | 17  | 2  | 0  | 0  | 0  | 0   | 0  | 83    |
|            | 4  | 0  | 0  | 0  | 8  | 47  | 84  | 51  | 10 | 0  | 0  | 0  | 0   | 0  | 204   |
| 07:00      | 0  | 0  | 0  | 0  | 2  | 16  | 39  | 19  | 3  | 0  | 0  | 0  | 0   | 0  | 79    |
| 07:15      | 1  | 0  | 0  | 1  | 3  | 20  | 57  | 24  | 0  | 1  | 0  | 0  | 0   | 0  | 107   |
| 07:30      | 0  | 0  | 0  | 0  | 2  | 20  | 60  | 25  | 2  | 0  | 0  | 0  | 0   | 0  | 109   |
| 07:45      | 0  | 0  | 2  | 0  | 0  | 23  | 43  | 20  | 4  | 1  | 0  | 0  | 0   | 0  | 93    |
|            | 1  | 0  | 2  | 1  | 7  | 79  | 199 | 88  | 9  | 2  | 0  | 0  | 0   | 0  | 388   |
| 08:00      | 1  | 0  | 0  | 0  | 3  | 17  | 34  | 23  | 5  | 0  | 0  | 0  | 0   | 0  | 83    |
| 08:15      | 0  | 0  | 0  | 0  | 2  | 12  | 47  | 13  | 1  | 0  | 0  | 0  | 0   | 0  | 75    |
| 08:30      | 0  | 0  | 0  | 1  | 2  | 16  | 36  | 13  | 0  | 1  | 0  | 0  | 0   | 0  | 69    |
| 08:45      | 1  | 0  | 1  | 0  | 4  | 17  | 28  | 13  | 2  | 1  | 0  | 0  | 0   | 0  | 67    |
|            | 2  | 0  | 1  | 1  | 11 | 62  | 145 | 62  | 8  | 2  | 0  | 0  | 0   | 0  | 294   |
| 09:00      | 0  | 0  | 1  | 0  | 4  | 23  | 19  | 16  | 3  | 0  | 0  | 0  | 0   | 0  | 66    |
| 09:15      | 0  | 0  | 2  | 0  | 2  | 12  | 26  | 5   | 2  | 1  | 0  | 0  | 0   | 0  | 50    |
| 09:30      | 1  | 1  | 0  | 0  | 3  | 12  | 29  | 16  | 1  | 0  | 0  | 0  | 0   | 0  | 63    |
| 09:45      | 2  | 1  | 0  | 0  | 0  | 17  | 43  | 11  | 1  | 0  | 0  | 0  | 0   | 0  | 75    |
|            | 3  | 2  | 3  | 0  | 9  | 64  | 117 | 48  | 7  | 1  | 0  | 0  | 0   | 0  | 254   |
| 10:00      | 0  | 0  | 0  | 0  | 2  | 22  | 31  | 24  | 2  | 0  | 0  | 0  | 0   | 0  | 81    |
| 10:15      | 0  | 0  | 0  | 1  | 1  | 18  | 21  | 19  | 0  | 0  | 0  | 0  | 0   | 0  | 60    |
| 10:30      | 1  | 1  | 1  | 0  | 3  | 19  | 36  | 18  | 4  | 0  | 0  | 0  | 0   | 0  | 83    |
| 10:45      | 0  | 1  | 0  | 0  | 2  | 17  | 39  | 15  | 0  | 0  | 0  | 0  | 0   | 0  | 74    |
|            | 1  | 2  | 1  | 1  | 8  | 76  | 127 | 76  | 6  | 0  | 0  | 0  | 0   | 0  | 298   |
| 11:00      | 0  | 0  | 0  | 1  | 1  | 12  | 47  | 11  | 1  | 0  | 0  | 0  | 0   | 0  | 73    |
| 11:15      | 0  | 0  | 0  | 0  | 4  | 23  | 42  | 17  | 1  | 0  | 0  | 0  | 0   | 0  | 87    |
| 11:30      | 0  | 1  | 1  | 2  | 3  | 22  | 40  | 11  | 0  | 0  | 0  | 0  | 0   | 0  | 80    |
| 11:45      | 1  | 1  | 0  | 1  | 5  | 29  | 45  | 15  | 0  | 0  | 0  | 0  | 0   | 0  | 97    |
|            | 1  | 2  | 1  | 4  | 13 | 86  | 174 | 54  | 2  | 0  | 0  | 0  | 0   | 0  | 337   |
| Total      | 13 | 7  | 8  | 13 | 71 | 452 | 925 | 414 | 52 | 6  | 0  | 0  | 0   | 0  | 1961  |

# All Traffic Data Services

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Page 2

Site Code: 1

Station ID: 1

OLD CORNEILIA HWY WEST OF OCONEE CIRCLE

Latitude: 0' 0.0000 Undefined

Longitude: 0' 0.0000 Undefined

EB

| Start Time  | 15 | 16 | 21 | 26 | 31  | 36   | 41   | 46   | 51  | 56 | 61 | 66 | 71 | 76  | Total |
|-------------|----|----|----|----|-----|------|------|------|-----|----|----|----|----|-----|-------|
|             | 15 | 20 | 25 | 30 | 35  | 40   | 45   | 50   | 55  | 60 | 65 | 70 | 75 | 999 |       |
| 12 PM       | 1  | 0  | 2  | 1  | 10  | 25   | 45   | 23   | 3   | 0  | 0  | 0  | 0  | 0   | 110   |
| 12:15       | 0  | 0  | 0  | 2  | 7   | 32   | 56   | 12   | 2   | 0  | 0  | 0  | 0  | 0   | 111   |
| 12:30       | 1  | 0  | 0  | 0  | 6   | 22   | 45   | 17   | 1   | 0  | 0  | 0  | 0  | 0   | 92    |
| 12:45       | 0  | 0  | 0  | 1  | 4   | 30   | 39   | 15   | 0   | 0  | 0  | 0  | 0  | 0   | 89    |
|             | 2  | 0  | 2  | 4  | 27  | 109  | 185  | 67   | 6   | 0  | 0  | 0  | 0  | 0   | 402   |
| 13:00       | 0  | 0  | 0  | 2  | 12  | 26   | 49   | 16   | 0   | 0  | 0  | 0  | 0  | 0   | 105   |
| 13:15       | 0  | 0  | 2  | 0  | 4   | 25   | 42   | 20   | 1   | 0  | 0  | 0  | 0  | 0   | 94    |
| 13:30       | 0  | 0  | 1  | 1  | 0   | 23   | 47   | 18   | 4   | 0  | 0  | 0  | 0  | 0   | 94    |
| 13:45       | 0  | 0  | 0  | 0  | 5   | 19   | 45   | 18   | 5   | 0  | 0  | 0  | 0  | 0   | 92    |
|             | 0  | 0  | 3  | 3  | 21  | 93   | 183  | 72   | 10  | 0  | 0  | 0  | 0  | 0   | 385   |
| 14:00       | 0  | 2  | 2  | 0  | 6   | 23   | 41   | 26   | 1   | 0  | 0  | 0  | 0  | 0   | 101   |
| 14:15       | 0  | 0  | 1  | 1  | 2   | 31   | 45   | 20   | 1   | 0  | 0  | 0  | 0  | 0   | 101   |
| 14:30       | 1  | 0  | 0  | 0  | 0   | 19   | 45   | 24   | 3   | 0  | 0  | 0  | 0  | 0   | 92    |
| 14:45       | 0  | 0  | 0  | 2  | 4   | 24   | 59   | 27   | 5   | 0  | 0  | 0  | 0  | 0   | 121   |
|             | 1  | 2  | 3  | 3  | 12  | 97   | 190  | 97   | 10  | 0  | 0  | 0  | 0  | 0   | 415   |
| 15:00       | 13 | 0  | 2  | 4  | 14  | 15   | 55   | 17   | 1   | 0  | 0  | 0  | 0  | 0   | 121   |
| 15:15       | 4  | 2  | 0  | 10 | 10  | 30   | 51   | 14   | 1   | 0  | 0  | 0  | 0  | 0   | 122   |
| 15:30       | 2  | 1  | 0  | 3  | 13  | 20   | 61   | 22   | 2   | 0  | 0  | 0  | 0  | 0   | 124   |
| 15:45       | 0  | 0  | 0  | 2  | 13  | 44   | 50   | 21   | 2   | 0  | 0  | 0  | 0  | 0   | 132   |
|             | 19 | 3  | 2  | 19 | 50  | 109  | 217  | 74   | 6   | 0  | 0  | 0  | 0  | 0   | 499   |
| 16:00       | 1  | 0  | 1  | 0  | 6   | 30   | 78   | 20   | 6   | 1  | 0  | 0  | 0  | 0   | 143   |
| 16:15       | 4  | 0  | 0  | 0  | 8   | 57   | 69   | 29   | 3   | 0  | 0  | 0  | 0  | 0   | 170   |
| 16:30       | 3  | 0  | 0  | 2  | 8   | 52   | 77   | 31   | 3   | 0  | 0  | 0  | 0  | 0   | 176   |
| 16:45       | 1  | 0  | 1  | 1  | 9   | 51   | 75   | 42   | 3   | 0  | 0  | 0  | 0  | 0   | 183   |
|             | 9  | 0  | 2  | 3  | 31  | 190  | 299  | 122  | 15  | 1  | 0  | 0  | 0  | 0   | 672   |
| 17:00       | 3  | 0  | 0  | 1  | 7   | 58   | 89   | 39   | 8   | 0  | 0  | 0  | 0  | 0   | 205   |
| 17:15       | 3  | 0  | 0  | 1  | 0   | 56   | 114  | 36   | 1   | 0  | 0  | 0  | 0  | 0   | 211   |
| 17:30       | 0  | 0  | 0  | 1  | 9   | 49   | 87   | 31   | 4   | 0  | 0  | 0  | 0  | 0   | 181   |
| 17:45       | 1  | 0  | 0  | 1  | 8   | 37   | 70   | 29   | 7   | 0  | 0  | 0  | 0  | 0   | 153   |
|             | 7  | 0  | 0  | 4  | 24  | 200  | 360  | 135  | 20  | 0  | 0  | 0  | 0  | 0   | 750   |
| 18:00       | 1  | 0  | 0  | 0  | 7   | 25   | 84   | 21   | 0   | 0  | 0  | 0  | 0  | 0   | 138   |
| 18:15       | 1  | 0  | 0  | 2  | 6   | 35   | 52   | 10   | 0   | 0  | 0  | 0  | 0  | 0   | 106   |
| 18:30       | 1  | 1  | 3  | 1  | 12  | 39   | 50   | 21   | 1   | 0  | 0  | 0  | 0  | 0   | 129   |
| 18:45       | 1  | 1  | 0  | 1  | 2   | 31   | 42   | 18   | 2   | 1  | 0  | 0  | 0  | 0   | 99    |
|             | 4  | 2  | 3  | 4  | 27  | 130  | 228  | 70   | 3   | 1  | 0  | 0  | 0  | 0   | 472   |
| 19:00       | 1  | 0  | 1  | 0  | 3   | 34   | 43   | 14   | 2   | 0  | 0  | 0  | 0  | 0   | 98    |
| 19:15       | 0  | 0  | 1  | 0  | 3   | 29   | 46   | 20   | 0   | 0  | 0  | 0  | 0  | 0   | 99    |
| 19:30       | 1  | 0  | 0  | 1  | 3   | 16   | 38   | 12   | 0   | 0  | 0  | 0  | 0  | 0   | 71    |
| 19:45       | 0  | 0  | 0  | 0  | 6   | 20   | 42   | 11   | 2   | 1  | 0  | 0  | 0  | 0   | 82    |
|             | 2  | 0  | 2  | 1  | 15  | 99   | 169  | 57   | 4   | 1  | 0  | 0  | 0  | 0   | 350   |
| 20:00       | 0  | 0  | 0  | 1  | 6   | 16   | 34   | 10   | 2   | 0  | 0  | 0  | 0  | 0   | 69    |
| 20:15       | 0  | 0  | 0  | 0  | 3   | 17   | 40   | 12   | 2   | 0  | 0  | 0  | 0  | 0   | 74    |
| 20:30       | 2  | 0  | 1  | 1  | 3   | 23   | 21   | 10   | 1   | 0  | 0  | 0  | 0  | 0   | 62    |
| 20:45       | 1  | 0  | 1  | 0  | 1   | 10   | 31   | 7    | 1   | 0  | 1  | 0  | 0  | 0   | 53    |
|             | 3  | 0  | 2  | 2  | 13  | 66   | 126  | 39   | 6   | 0  | 1  | 0  | 0  | 0   | 258   |
| 21:00       | 0  | 0  | 0  | 0  | 4   | 10   | 24   | 5    | 2   | 0  | 0  | 0  | 0  | 0   | 45    |
| 21:15       | 0  | 0  | 0  | 0  | 2   | 13   | 13   | 6    | 0   | 0  | 0  | 0  | 0  | 0   | 34    |
| 21:30       | 0  | 0  | 0  | 0  | 2   | 18   | 15   | 6    | 0   | 0  | 0  | 0  | 0  | 0   | 41    |
| 21:45       | 0  | 0  | 0  | 0  | 1   | 11   | 13   | 5    | 1   | 0  | 0  | 0  | 0  | 0   | 31    |
|             | 0  | 0  | 0  | 0  | 9   | 52   | 65   | 22   | 3   | 0  | 0  | 0  | 0  | 0   | 151   |
| 22:00       | 0  | 0  | 1  | 0  | 1   | 6    | 11   | 2    | 0   | 0  | 0  | 0  | 0  | 0   | 21    |
| 22:15       | 0  | 0  | 0  | 1  | 2   | 10   | 7    | 5    | 1   | 0  | 0  | 0  | 0  | 0   | 26    |
| 22:30       | 0  | 0  | 0  | 0  | 1   | 8    | 9    | 3    | 0   | 0  | 0  | 0  | 0  | 0   | 21    |
| 22:45       | 0  | 0  | 0  | 1  | 1   | 4    | 9    | 2    | 0   | 0  | 0  | 0  | 0  | 0   | 17    |
|             | 0  | 0  | 1  | 2  | 5   | 28   | 36   | 12   | 1   | 0  | 0  | 0  | 0  | 0   | 85    |
| 23:00       | 0  | 0  | 0  | 0  | 1   | 6    | 15   | 2    | 0   | 0  | 0  | 0  | 0  | 0   | 24    |
| 23:15       | 1  | 0  | 0  | 0  | 2   | 9    | 7    | 1    | 0   | 0  | 0  | 0  | 0  | 0   | 20    |
| 23:30       | 0  | 0  | 0  | 0  | 0   | 4    | 9    | 4    | 0   | 0  | 0  | 0  | 0  | 0   | 17    |
| 23:45       | 0  | 0  | 0  | 1  | 0   | 5    | 7    | 1    | 1   | 0  | 0  | 0  | 0  | 0   | 15    |
|             | 1  | 0  | 0  | 1  | 3   | 24   | 38   | 8    | 1   | 0  | 0  | 0  | 0  | 0   | 76    |
| Total       | 48 | 7  | 20 | 46 | 237 | 1197 | 2096 | 775  | 85  | 3  | 1  | 0  | 0  | 0   | 4515  |
| Grand Total | 61 | 14 | 28 | 59 | 308 | 1649 | 3021 | 1189 | 137 | 9  | 1  | 0  | 0  | 0   | 6476  |

15th Percentile : 36 MPH  
 50th Percentile : 41 MPH  
 85th Percentile : 46 MPH  
 95th Percentile : 49 MPH

Stats Mean Speed(Average) : 42 MPH  
 10 MPH Pace Speed : 36-45 MPH  
 Number in Pace : 4670

|                                |       |
|--------------------------------|-------|
| Percent in Pace :              | 72.1% |
| Number of Vehicles > 55 MPH :  | 10    |
| Percent of Vehicles > 55 MPH : | 0.2%  |

# All Traffic Data Services

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Site Code: 1

Station ID: 1

OLD CORNEILIA HWY WEST OF OCONEE CIRCLE

Latitude: 0' 0.0000 Undefined

Longitude: 0' 0.0000 Undefined

| WB    | Start Time | 15 | 16 | 21 | 26 | 31  | 36   | 41   | 46  | 51 | 56 | 61 | 66 | 71 | 76  | Total |
|-------|------------|----|----|----|----|-----|------|------|-----|----|----|----|----|----|-----|-------|
|       |            | 15 | 20 | 25 | 30 | 35  | 40   | 45   | 50  | 55 | 60 | 65 | 70 | 75 | 999 |       |
|       | 02/17/21   | 0  | 0  | 0  | 0  | 0   | 1    | 2    | 0   | 0  | 0  | 0  | 0  | 0  | 0   | 3     |
|       | 00:15      | 0  | 0  | 0  | 0  | 0   | 4    | 2    | 2   | 0  | 0  | 0  | 0  | 0  | 0   | 8     |
|       | 00:30      | 0  | 0  | 0  | 1  | 0   | 0    | 2    | 1   | 1  | 0  | 0  | 0  | 0  | 0   | 5     |
|       | 00:45      | 0  | 0  | 0  | 0  | 1   | 0    | 0    | 0   | 0  | 0  | 0  | 0  | 0  | 0   | 1     |
|       | 01:00      | 0  | 0  | 0  | 1  | 1   | 5    | 6    | 3   | 1  | 0  | 0  | 0  | 0  | 0   | 17    |
|       | 01:15      | 0  | 0  | 0  | 0  | 0   | 0    | 2    | 0   | 0  | 0  | 0  | 0  | 0  | 0   | 2     |
|       | 01:30      | 0  | 0  | 0  | 0  | 0   | 1    | 1    | 2   | 0  | 0  | 0  | 0  | 0  | 0   | 4     |
|       | 01:45      | 0  | 0  | 0  | 0  | 1   | 1    | 0    | 1   | 0  | 0  | 0  | 0  | 0  | 0   | 3     |
|       | 02:00      | 0  | 0  | 0  | 0  | 0   | 0    | 0    | 1   | 0  | 0  | 0  | 0  | 0  | 0   | 1     |
|       | 02:15      | 0  | 0  | 0  | 0  | 1   | 2    | 3    | 4   | 0  | 0  | 0  | 0  | 0  | 0   | 10    |
|       | 02:30      | 0  | 0  | 0  | 0  | 0   | 2    | 0    | 0   | 0  | 0  | 0  | 0  | 0  | 0   | 2     |
|       | 02:45      | 0  | 0  | 0  | 0  | 0   | 1    | 1    | 2   | 0  | 0  | 0  | 0  | 0  | 0   | 4     |
|       | 03:00      | 0  | 0  | 0  | 0  | 0   | 3    | 3    | 3   | 1  | 0  | 0  | 0  | 0  | 0   | 10    |
|       | 03:15      | 0  | 0  | 0  | 0  | 0   | 2    | 2    | 0   | 0  | 0  | 0  | 0  | 0  | 0   | 4     |
|       | 03:30      | 0  | 0  | 0  | 0  | 1   | 2    | 5    | 1   | 0  | 0  | 0  | 0  | 0  | 0   | 9     |
|       | 03:45      | 0  | 0  | 0  | 0  | 0   | 1    | 2    | 1   | 0  | 0  | 0  | 0  | 0  | 0   | 4     |
|       | 04:00      | 0  | 0  | 0  | 0  | 0   | 2    | 5    | 0   | 0  | 0  | 0  | 0  | 0  | 0   | 7     |
|       | 04:15      | 0  | 0  | 0  | 0  | 1   | 7    | 14   | 2   | 0  | 0  | 0  | 0  | 0  | 0   | 24    |
|       | 04:30      | 0  | 0  | 0  | 0  | 1   | 1    | 6    | 1   | 0  | 0  | 0  | 0  | 0  | 0   | 9     |
|       | 04:45      | 0  | 0  | 0  | 0  | 0   | 3    | 3    | 4   | 2  | 0  | 0  | 0  | 0  | 0   | 12    |
|       | 05:00      | 0  | 1  | 0  | 0  | 2   | 3    | 9    | 6   | 0  | 0  | 0  | 0  | 0  | 0   | 21    |
|       | 05:15      | 0  | 0  | 0  | 0  | 1   | 5    | 10   | 6   | 2  | 0  | 0  | 0  | 0  | 0   | 24    |
|       | 05:30      | 0  | 1  | 0  | 0  | 4   | 12   | 28   | 17  | 4  | 0  | 0  | 0  | 0  | 0   | 66    |
|       | 05:45      | 1  | 0  | 0  | 0  | 0   | 3    | 10   | 7   | 3  | 1  | 0  | 0  | 0  | 0   | 25    |
|       | 06:00      | 0  | 0  | 0  | 0  | 1   | 8    | 19   | 12  | 0  | 0  | 0  | 0  | 0  | 0   | 40    |
|       | 06:15      | 0  | 0  | 0  | 0  | 0   | 10   | 22   | 22  | 4  | 0  | 0  | 0  | 0  | 0   | 58    |
|       | 06:30      | 0  | 0  | 0  | 0  | 2   | 8    | 28   | 19  | 3  | 1  | 0  | 0  | 0  | 0   | 61    |
|       | 06:45      | 1  | 0  | 0  | 0  | 3   | 29   | 79   | 60  | 10 | 2  | 0  | 0  | 0  | 0   | 184   |
|       | 07:00      | 0  | 1  | 0  | 0  | 0   | 18   | 37   | 14  | 0  | 0  | 0  | 0  | 0  | 0   | 70    |
|       | 07:15      | 0  | 0  | 0  | 0  | 6   | 43   | 64   | 12  | 3  | 0  | 0  | 0  | 0  | 0   | 128   |
|       | 07:30      | 0  | 0  | 0  | 0  | 1   | 26   | 77   | 16  | 1  | 0  | 0  | 0  | 0  | 0   | 121   |
|       | 07:45      | 0  | 0  | 0  | 0  | 3   | 41   | 83   | 16  | 1  | 0  | 0  | 0  | 0  | 0   | 144   |
|       | 08:00      | 0  | 1  | 0  | 0  | 10  | 128  | 261  | 58  | 5  | 0  | 0  | 0  | 0  | 0   | 463   |
|       | 08:15      | 0  | 0  | 0  | 0  | 7   | 56   | 77   | 20  | 1  | 0  | 0  | 0  | 0  | 0   | 161   |
|       | 08:30      | 0  | 1  | 0  | 0  | 11  | 73   | 86   | 23  | 3  | 0  | 0  | 0  | 0  | 0   | 197   |
|       | 08:45      | 0  | 2  | 0  | 0  | 7   | 78   | 115  | 18  | 1  | 0  | 0  | 0  | 0  | 0   | 221   |
|       | 09:00      | 0  | 1  | 0  | 2  | 9   | 72   | 114  | 24  | 3  | 0  | 0  | 0  | 0  | 0   | 225   |
|       | 09:15      | 0  | 4  | 0  | 2  | 34  | 279  | 392  | 85  | 8  | 0  | 0  | 0  | 0  | 0   | 804   |
|       | 09:30      | 0  | 0  | 1  | 0  | 2   | 57   | 99   | 28  | 2  | 0  | 0  | 0  | 0  | 0   | 189   |
|       | 09:45      | 0  | 0  | 0  | 0  | 4   | 53   | 92   | 11  | 0  | 0  | 0  | 0  | 0  | 0   | 160   |
|       | 10:00      | 0  | 0  | 0  | 0  | 3   | 52   | 67   | 19  | 5  | 0  | 0  | 0  | 0  | 0   | 146   |
|       | 10:15      | 0  | 0  | 0  | 0  | 8   | 33   | 50   | 17  | 2  | 0  | 0  | 0  | 0  | 0   | 110   |
|       | 10:30      | 0  | 0  | 1  | 0  | 17  | 195  | 308  | 75  | 9  | 0  | 0  | 0  | 0  | 0   | 605   |
|       | 10:45      | 1  | 1  | 0  | 5  | 1   | 32   | 35   | 16  | 0  | 0  | 0  | 0  | 0  | 0   | 91    |
|       | 11:00      | 0  | 1  | 0  | 0  | 5   | 31   | 54   | 9   | 3  | 0  | 0  | 0  | 0  | 0   | 103   |
|       | 11:15      | 1  | 2  | 0  | 0  | 6   | 50   | 40   | 9   | 0  | 0  | 0  | 0  | 0  | 0   | 108   |
|       | 11:30      | 0  | 2  | 0  | 3  | 10  | 37   | 44   | 10  | 0  | 0  | 0  | 0  | 0  | 0   | 106   |
|       | 11:45      | 2  | 6  | 0  | 8  | 22  | 150  | 173  | 44  | 3  | 0  | 0  | 0  | 0  | 0   | 408   |
|       | 12:00      | 0  | 0  | 0  | 0  | 3   | 43   | 34   | 6   | 0  | 0  | 0  | 0  | 0  | 0   | 86    |
|       | 12:15      | 0  | 0  | 0  | 1  | 12  | 54   | 36   | 2   | 0  | 0  | 0  | 0  | 0  | 0   | 105   |
|       | 12:30      | 0  | 1  | 1  | 0  | 9   | 36   | 43   | 8   | 1  | 0  | 0  | 0  | 0  | 0   | 99    |
|       | 12:45      | 0  | 1  | 1  | 2  | 7   | 37   | 39   | 6   | 1  | 0  | 0  | 0  | 0  | 0   | 94    |
|       | 13:00      | 0  | 2  | 2  | 3  | 31  | 170  | 152  | 22  | 2  | 0  | 0  | 0  | 0  | 0   | 384   |
|       | 13:15      | 0  | 0  | 0  | 0  | 9   | 29   | 39   | 8   | 1  | 0  | 0  | 0  | 0  | 0   | 86    |
|       | 13:30      | 0  | 0  | 0  | 0  | 4   | 39   | 40   | 13  | 0  | 0  | 0  | 0  | 0  | 0   | 96    |
|       | 13:45      | 1  | 0  | 0  | 4  | 18  | 52   | 28   | 2   | 0  | 0  | 0  | 0  | 0  | 0   | 105   |
|       | 14:00      | 1  | 0  | 0  | 0  | 9   | 64   | 21   | 2   | 0  | 0  | 0  | 0  | 0  | 0   | 97    |
|       | 14:15      | 2  | 0  | 0  | 4  | 40  | 184  | 128  | 25  | 1  | 0  | 0  | 0  | 0  | 0   | 384   |
| Total |            | 5  | 14 | 3  | 18 | 164 | 1164 | 1547 | 398 | 44 | 2  | 0  | 0  | 0  | 0   | 3359  |

# All Traffic Data Services

[www.alltrafficdata.net](http://www.alltrafficdata.net)

Site Code: 1

Station ID: 1

OLD CORNEILIA HWY WEST OF OCONEE CIRCLE

Latitude: 0' 0.0000 Undefined

Longitude: 0' 0.0000 Undefined

| WB          | Start Time | 15 | 16 | 21 | 26 | 31  | 36   | 41   | 46  | 51 | 56 | 61 | 66 | 71 | 76  | Total |
|-------------|------------|----|----|----|----|-----|------|------|-----|----|----|----|----|----|-----|-------|
|             |            | 15 | 20 | 25 | 30 | 35  | 40   | 45   | 50  | 55 | 60 | 65 | 70 | 75 | 999 |       |
|             | 12 PM      | 1  | 3  | 0  | 0  | 12  | 65   | 11   | 0   | 0  | 0  | 0  | 0  | 0  | 0   | 92    |
|             | 12:15      | 0  | 1  | 0  | 0  | 18  | 44   | 39   | 1   | 0  | 0  | 0  | 0  | 0  | 0   | 103   |
|             | 12:30      | 0  | 0  | 0  | 1  | 9   | 44   | 41   | 3   | 0  | 0  | 0  | 0  | 0  | 0   | 98    |
|             | 12:45      | 3  | 1  | 0  | 1  | 5   | 52   | 30   | 9   | 2  | 0  | 0  | 0  | 0  | 0   | 103   |
|             |            | 4  | 5  | 0  | 2  | 44  | 205  | 121  | 13  | 2  | 0  | 0  | 0  | 0  | 0   | 396   |
|             | 13:00      | 0  | 0  | 1  | 0  | 6   | 51   | 38   | 13  | 0  | 0  | 0  | 0  | 0  | 0   | 109   |
|             | 13:15      | 0  | 1  | 0  | 1  | 13  | 24   | 24   | 4   | 2  | 0  | 0  | 0  | 0  | 0   | 69    |
|             | 13:30      | 2  | 1  | 0  | 3  | 12  | 51   | 41   | 4   | 2  | 0  | 0  | 0  | 0  | 0   | 116   |
|             | 13:45      | 1  | 2  | 0  | 0  | 3   | 40   | 28   | 10  | 4  | 0  | 0  | 0  | 0  | 0   | 88    |
|             |            | 3  | 4  | 1  | 4  | 34  | 166  | 131  | 31  | 8  | 0  | 0  | 0  | 0  | 0   | 382   |
|             | 14:00      | 0  | 0  | 0  | 0  | 6   | 42   | 27   | 7   | 1  | 0  | 0  | 0  | 0  | 0   | 83    |
|             | 14:15      | 1  | 0  | 0  | 1  | 12  | 36   | 38   | 8   | 0  | 0  | 0  | 0  | 0  | 0   | 96    |
|             | 14:30      | 3  | 0  | 0  | 1  | 1   | 27   | 41   | 16  | 0  | 0  | 0  | 0  | 0  | 0   | 89    |
|             | 14:45      | 0  | 0  | 1  | 0  | 5   | 35   | 48   | 14  | 0  | 1  | 0  | 0  | 0  | 0   | 104   |
|             |            | 4  | 0  | 1  | 2  | 24  | 140  | 154  | 45  | 1  | 1  | 0  | 0  | 0  | 0   | 372   |
|             | 15:00      | 0  | 1  | 2  | 4  | 3   | 13   | 30   | 7   | 0  | 1  | 0  | 0  | 0  | 0   | 61    |
|             | 15:15      | 2  | 1  | 0  | 8  | 18  | 62   | 38   | 9   | 6  | 0  | 0  | 0  | 0  | 0   | 144   |
|             | 15:30      | 0  | 0  | 0  | 1  | 6   | 40   | 54   | 11  | 2  | 1  | 0  | 0  | 0  | 0   | 115   |
|             | 15:45      | 1  | 1  | 0  | 0  | 2   | 56   | 69   | 23  | 0  | 0  | 0  | 0  | 0  | 0   | 152   |
|             |            | 3  | 3  | 2  | 13 | 29  | 171  | 191  | 50  | 8  | 2  | 0  | 0  | 0  | 0   | 472   |
|             | 16:00      | 0  | 0  | 2  | 5  | 4   | 84   | 53   | 10  | 2  | 0  | 0  | 0  | 0  | 0   | 160   |
|             | 16:15      | 0  | 1  | 0  | 1  | 6   | 26   | 62   | 20  | 1  | 0  | 0  | 0  | 0  | 0   | 117   |
|             | 16:30      | 1  | 0  | 0  | 0  | 7   | 25   | 53   | 19  | 1  | 1  | 0  | 0  | 0  | 0   | 107   |
|             | 16:45      | 0  | 1  | 2  | 0  | 0   | 12   | 57   | 40  | 4  | 0  | 0  | 0  | 0  | 0   | 116   |
|             |            | 1  | 2  | 4  | 6  | 17  | 147  | 225  | 89  | 8  | 1  | 0  | 0  | 0  | 0   | 500   |
|             | 17:00      | 0  | 0  | 0  | 0  | 9   | 30   | 48   | 31  | 3  | 0  | 0  | 0  | 0  | 0   | 121   |
|             | 17:15      | 0  | 0  | 0  | 0  | 4   | 43   | 68   | 24  | 2  | 0  | 0  | 0  | 0  | 0   | 141   |
|             | 17:30      | 0  | 0  | 0  | 0  | 5   | 17   | 43   | 25  | 3  | 0  | 0  | 0  | 0  | 0   | 93    |
|             | 17:45      | 0  | 0  | 0  | 1  | 4   | 28   | 61   | 18  | 1  | 0  | 0  | 0  | 0  | 0   | 113   |
|             |            | 0  | 0  | 0  | 1  | 22  | 118  | 220  | 98  | 9  | 0  | 0  | 0  | 0  | 0   | 468   |
|             | 18:00      | 1  | 0  | 0  | 0  | 2   | 25   | 67   | 30  | 1  | 1  | 0  | 0  | 0  | 0   | 127   |
|             | 18:15      | 0  | 0  | 0  | 0  | 1   | 12   | 59   | 25  | 1  | 0  | 0  | 0  | 0  | 0   | 98    |
|             | 18:30      | 0  | 0  | 0  | 0  | 0   | 42   | 45   | 10  | 1  | 0  | 0  | 0  | 0  | 0   | 98    |
|             | 18:45      | 0  | 0  | 0  | 2  | 3   | 25   | 39   | 10  | 1  | 0  | 0  | 0  | 0  | 0   | 80    |
|             |            | 1  | 0  | 0  | 2  | 6   | 104  | 210  | 75  | 4  | 1  | 0  | 0  | 0  | 0   | 403   |
|             | 19:00      | 0  | 0  | 0  | 0  | 1   | 13   | 48   | 12  | 1  | 0  | 0  | 0  | 0  | 0   | 75    |
|             | 19:15      | 0  | 0  | 0  | 1  | 4   | 19   | 38   | 9   | 0  | 0  | 0  | 0  | 0  | 0   | 71    |
|             | 19:30      | 0  | 0  | 0  | 0  | 2   | 17   | 28   | 7   | 3  | 0  | 0  | 0  | 0  | 0   | 57    |
|             | 19:45      | 0  | 0  | 0  | 0  | 2   | 16   | 15   | 5   | 0  | 0  | 0  | 0  | 0  | 0   | 38    |
|             |            | 0  | 0  | 0  | 1  | 9   | 65   | 129  | 33  | 4  | 0  | 0  | 0  | 0  | 0   | 241   |
|             | 20:00      | 0  | 0  | 0  | 0  | 1   | 15   | 23   | 2   | 3  | 0  | 0  | 0  | 0  | 0   | 44    |
|             | 20:15      | 0  | 0  | 0  | 1  | 2   | 7    | 17   | 11  | 0  | 0  | 0  | 0  | 0  | 0   | 38    |
|             | 20:30      | 0  | 0  | 0  | 0  | 3   | 13   | 20   | 7   | 0  | 0  | 0  | 0  | 0  | 0   | 43    |
|             | 20:45      | 0  | 1  | 0  | 1  | 0   | 3    | 12   | 10  | 1  | 1  | 0  | 0  | 0  | 0   | 29    |
|             |            | 0  | 1  | 0  | 2  | 6   | 38   | 72   | 30  | 4  | 1  | 0  | 0  | 0  | 0   | 154   |
|             | 21:00      | 0  | 0  | 0  | 0  | 0   | 6    | 17   | 7   | 2  | 0  | 0  | 0  | 0  | 0   | 32    |
|             | 21:15      | 0  | 0  | 0  | 1  | 1   | 15   | 15   | 5   | 1  | 0  | 0  | 0  | 0  | 0   | 38    |
|             | 21:30      | 0  | 0  | 0  | 0  | 1   | 4    | 18   | 4   | 0  | 0  | 0  | 0  | 0  | 0   | 27    |
|             | 21:45      | 0  | 1  | 0  | 0  | 3   | 7    | 11   | 6   | 1  | 0  | 0  | 0  | 0  | 0   | 29    |
|             |            | 0  | 1  | 0  | 1  | 5   | 32   | 61   | 22  | 4  | 0  | 0  | 0  | 0  | 0   | 126   |
|             | 22:00      | 0  | 0  | 0  | 0  | 0   | 3    | 9    | 4   | 1  | 0  | 1  | 0  | 0  | 0   | 18    |
|             | 22:15      | 0  | 0  | 0  | 0  | 0   | 4    | 11   | 8   | 0  | 0  | 0  | 0  | 0  | 0   | 23    |
|             | 22:30      | 0  | 0  | 0  | 0  | 3   | 3    | 8    | 2   | 0  | 0  | 0  | 0  | 0  | 0   | 16    |
|             | 22:45      | 0  | 0  | 0  | 0  | 0   | 3    | 7    | 0   | 1  | 0  | 0  | 0  | 0  | 0   | 11    |
|             |            | 0  | 0  | 0  | 0  | 3   | 13   | 35   | 14  | 2  | 0  | 1  | 0  | 0  | 0   | 68    |
|             | 23:00      | 0  | 0  | 0  | 0  | 3   | 2    | 4    | 1   | 1  | 0  | 0  | 0  | 0  | 0   | 11    |
|             | 23:15      | 0  | 0  | 0  | 1  | 2   | 3    | 3    | 0   | 0  | 0  | 0  | 0  | 0  | 0   | 9     |
|             | 23:30      | 0  | 0  | 0  | 0  | 1   | 5    | 2    | 1   | 0  | 0  | 0  | 0  | 0  | 0   | 9     |
|             | 23:45      | 0  | 0  | 0  | 0  | 0   | 1    | 0    | 3   | 0  | 0  | 0  | 0  | 0  | 0   | 4     |
|             |            | 0  | 0  | 0  | 1  | 6   | 11   | 9    | 5   | 1  | 0  | 0  | 0  | 0  | 0   | 33    |
|             | Total      | 16 | 16 | 8  | 35 | 205 | 1210 | 1558 | 505 | 55 | 6  | 1  | 0  | 0  | 0   | 3615  |
| Grand Total |            | 21 | 30 | 11 | 53 | 369 | 2374 | 3105 | 903 | 99 | 8  | 1  | 0  | 0  | 0   | 6974  |

15th Percentile : 36 MPH  
 50th Percentile : 41 MPH  
 85th Percentile : 44 MPH  
 95th Percentile : 48 MPH

Stats Mean Speed(Average) : 41 MPH  
 10 MPH Pace Speed : 36-45 MPH  
 Number in Pace : 5479



|                                |       |
|--------------------------------|-------|
| Percent in Pace :              | 78.6% |
| Number of Vehicles > 55 MPH :  | 9     |
| Percent of Vehicles > 55 MPH : | 0.1%  |

# All Traffic Data Services

[www.alltrafficdata.net](http://www.alltrafficdata.net)

Page 1

Site Code: 1

Station ID: 1

OLD CORNEILIA HWY WEST OF OCONEE CIRCLE

Latitude: 0' 0.0000 Undefined

Longitude: 0' 0.0000 Undefined

EB

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|------------|-------|-----------------|-------------|-------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|-------|
| 02/17/21   | 0     | 7               | 2           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 9     |
| 00:15      | 0     | 5               | 1           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 6     |
| 00:30      | 0     | 6               | 0           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 7     |
| 00:45      | 0     | 4               | 2           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 6     |
| 01:00      | 0     | 22              | 5           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 28    |
| 01:15      | 0     | 5               | 0           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 5     |
| 01:30      | 0     | 9               | 2           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 11    |
| 01:45      | 0     | 5               | 0           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 5     |
| 02:00      | 0     | 3               | 0           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 4     |
| 02:15      | 0     | 22              | 2           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 25    |
| 02:30      | 0     | 4               | 0           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 4     |
| 02:45      | 0     | 3               | 1           | 0     | 0             | 0             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 6     |
| 03:00      | 0     | 5               | 1           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 6     |
| 03:15      | 0     | 5               | 1           | 0     | 0             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 7     |
| 03:30      | 0     | 17              | 3           | 0     | 0             | 0             | 0             | 0             | 3             | 0             | 0            | 0            | 0            | 23    |
| 03:45      | 0     | 2               | 0           | 0     | 0             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 3     |
| 04:00      | 0     | 1               | 1           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 2     |
| 04:15      | 0     | 5               | 0           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 5     |
| 04:30      | 0     | 3               | 0           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 4     |
| 04:45      | 0     | 11              | 1           | 0     | 1             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 14    |
| 05:00      | 0     | 3               | 2           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 5     |
| 05:15      | 0     | 2               | 0           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 2     |
| 05:30      | 0     | 6               | 1           | 0     | 0             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 8     |
| 05:45      | 0     | 7               | 0           | 0     | 0             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 8     |
| 06:00      | 0     | 18              | 3           | 0     | 0             | 1             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 23    |
| 06:15      | 0     | 12              | 2           | 0     | 1             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 16    |
| 06:30      | 0     | 11              | 0           | 0     | 1             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 13    |
| 06:45      | 0     | 15              | 5           | 0     | 0             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 21    |
| 07:00      | 0     | 16              | 7           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 23    |
| 07:15      | 0     | 54              | 14          | 0     | 2             | 0             | 0             | 0             | 3             | 0             | 0            | 0            | 0            | 73    |
| 07:30      | 1     | 24              | 5           | 1     | 1             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 33    |
| 07:45      | 0     | 26              | 13          | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 39    |
| 08:00      | 0     | 34              | 13          | 0     | 2             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 49    |
| 08:15      | 0     | 62              | 16          | 1     | 1             | 2             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 83    |
| 08:30      | 1     | 146             | 47          | 2     | 4             | 2             | 0             | 1             | 1             | 0             | 0            | 0            | 0            | 204   |
| 08:45      | 1     | 65              | 11          | 0     | 2             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 79    |
| 09:00      | 0     | 81              | 21          | 0     | 4             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 107   |
| 09:15      | 0     | 88              | 17          | 0     | 2             | 2             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 109   |
| 09:30      | 2     | 68              | 14          | 1     | 3             | 1             | 0             | 2             | 2             | 0             | 0            | 0            | 0            | 93    |
| 09:45      | 3     | 302             | 63          | 1     | 11            | 4             | 0             | 2             | 2             | 0             | 0            | 0            | 0            | 388   |
| 10:00      | 0     | 58              | 16          | 0     | 8             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 83    |
| 10:15      | 0     | 54              | 18          | 0     | 1             | 0             | 0             | 1             | 1             | 0             | 0            | 0            | 0            | 75    |
| 10:30      | 0     | 46              | 17          | 0     | 3             | 1             | 1             | 1             | 0             | 0             | 0            | 0            | 0            | 69    |
| 10:45      | 0     | 52              | 10          | 1     | 2             | 0             | 1             | 0             | 1             | 0             | 0            | 0            | 0            | 67    |
| 11:00      | 0     | 210             | 61          | 1     | 14            | 1             | 2             | 2             | 3             | 0             | 0            | 0            | 0            | 294   |
| 11:15      | 0     | 47              | 14          | 0     | 5             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 66    |
| 11:30      | 1     | 36              | 9           | 1     | 1             | 1             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 50    |
| 11:45      | 0     | 43              | 19          | 0     | 0             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 63    |
| 12:00      | 0     | 54              | 17          | 0     | 3             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 75    |
| 12:15      | 1     | 180             | 59          | 1     | 9             | 2             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 254   |
| 12:30      | 0     | 55              | 18          | 1     | 3             | 2             | 0             | 1             | 0             | 0             | 0            | 1            | 0            | 81    |
| 12:45      | 0     | 46              | 13          | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 60    |
| 13:00      | 0     | 65              | 17          | 1     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 83    |
| 13:15      | 0     | 58              | 14          | 0     | 1             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 74    |
| 13:30      | 0     | 224             | 62          | 2     | 5             | 3             | 0             | 1             | 0             | 0             | 0            | 1            | 0            | 298   |
| 13:45      | 0     | 60              | 10          | 0     | 2             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 73    |
| 14:00      | 0     | 65              | 17          | 0     | 4             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 87    |
| 14:15      | 0     | 63              | 13          | 0     | 3             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 80    |
| 14:30      | 0     | 81              | 13          | 0     | 3             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 97    |
| 14:45      | 0     | 269             | 53          | 0     | 12            | 1             | 0             | 2             | 0             | 0             | 0            | 0            | 0            | 337   |
| Total      | 5     | 1475            | 373         | 7     | 60            | 15            | 2             | 8             | 15            | 0             | 0            | 1            | 0            | 1961  |
| Percent    | 0.3%  | 75.2%           | 19.0%       | 0.4%  | 3.1%          | 0.8%          | 0.1%          | 0.4%          | 0.8%          | 0.0%          | 0.0%         | 0.1%         | 0.0%         |       |

# All Traffic Data Services

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Page 2

Site Code: 1

Station ID: 1

OLD CORNEILIA HWY WEST OF OCONEE CIRCLE

Latitude: 0' 0.0000 Undefined

Longitude: 0' 0.0000 Undefined

EB

| Start Time  | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|-------------|-------|-----------------|-------------|-------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|-------|
| 12 PM       | 0     | 84              | 18          | 1     | 2             | 2             | 0             | 0             | 3             | 0             | 0            | 0            | 0            | 110   |
| 12:15       | 0     | 90              | 15          | 1     | 1             | 1             | 0             | 2             | 1             | 0             | 0            | 0            | 0            | 111   |
| 12:30       | 0     | 68              | 24          | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 92    |
| 12:45       | 0     | 67              | 18          | 0     | 1             | 1             | 0             | 1             | 1             | 0             | 0            | 0            | 0            | 89    |
|             | 0     | 309             | 75          | 2     | 4             | 4             | 0             | 3             | 5             | 0             | 0            | 0            | 0            | 402   |
| 13:00       | 0     | 82              | 17          | 1     | 2             | 0             | 0             | 1             | 1             | 0             | 1            | 0            | 0            | 105   |
| 13:15       | 0     | 72              | 18          | 0     | 3             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 94    |
| 13:30       | 0     | 74              | 13          | 0     | 5             | 1             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 94    |
| 13:45       | 0     | 66              | 20          | 0     | 3             | 2             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 92    |
|             | 0     | 294             | 68          | 1     | 13            | 3             | 0             | 3             | 2             | 0             | 1            | 0            | 0            | 385   |
| 14:00       | 1     | 75              | 19          | 0     | 3             | 1             | 0             | 1             | 1             | 0             | 0            | 0            | 0            | 101   |
| 14:15       | 1     | 74              | 22          | 1     | 3             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 101   |
| 14:30       | 1     | 75              | 15          | 0     | 0             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 92    |
| 14:45       | 0     | 89              | 24          | 0     | 6             | 0             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 121   |
|             | 3     | 313             | 80          | 1     | 12            | 1             | 0             | 2             | 3             | 0             | 0            | 0            | 0            | 415   |
| 15:00       | 1     | 94              | 22          | 0     | 2             | 2             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 121   |
| 15:15       | 1     | 99              | 13          | 0     | 5             | 1             | 0             | 0             | 2             | 0             | 0            | 1            | 0            | 122   |
| 15:30       | 1     | 99              | 21          | 0     | 2             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 124   |
| 15:45       | 0     | 105             | 22          | 0     | 3             | 2             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 132   |
|             | 3     | 397             | 78          | 0     | 12            | 5             | 0             | 1             | 2             | 0             | 0            | 1            | 0            | 499   |
| 16:00       | 0     | 106             | 32          | 0     | 3             | 1             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 143   |
| 16:15       | 2     | 134             | 27          | 2     | 2             | 1             | 0             | 2             | 0             | 0             | 0            | 0            | 0            | 170   |
| 16:30       | 1     | 137             | 28          | 0     | 3             | 3             | 0             | 1             | 2             | 0             | 0            | 1            | 0            | 176   |
| 16:45       | 1     | 140             | 37          | 0     | 3             | 0             | 0             | 2             | 0             | 0             | 0            | 0            | 0            | 183   |
|             | 4     | 517             | 124         | 2     | 11            | 5             | 0             | 6             | 2             | 0             | 0            | 1            | 0            | 672   |
| 17:00       | 0     | 167             | 33          | 0     | 2             | 2             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 205   |
| 17:15       | 0     | 163             | 45          | 0     | 1             | 0             | 0             | 0             | 0             | 1             | 0            | 1            | 0            | 211   |
| 17:30       | 0     | 138             | 36          | 0     | 4             | 0             | 1             | 2             | 0             | 0             | 0            | 0            | 0            | 181   |
| 17:45       | 0     | 131             | 18          | 0     | 1             | 1             | 0             | 1             | 1             | 0             | 0            | 0            | 0            | 153   |
|             | 0     | 599             | 132         | 0     | 8             | 3             | 1             | 4             | 1             | 1             | 0            | 1            | 0            | 750   |
| 18:00       | 0     | 108             | 25          | 0     | 4             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 138   |
| 18:15       | 0     | 86              | 15          | 0     | 3             | 0             | 1             | 1             | 0             | 0             | 0            | 0            | 0            | 106   |
| 18:30       | 2     | 109             | 15          | 0     | 2             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 129   |
| 18:45       | 1     | 81              | 14          | 1     | 0             | 2             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 99    |
|             | 3     | 384             | 69          | 1     | 9             | 2             | 1             | 3             | 0             | 0             | 0            | 0            | 0            | 472   |
| 19:00       | 0     | 76              | 18          | 0     | 1             | 0             | 0             | 2             | 1             | 0             | 0            | 0            | 0            | 98    |
| 19:15       | 0     | 79              | 19          | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 99    |
| 19:30       | 0     | 57              | 10          | 0     | 3             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 71    |
| 19:45       | 0     | 67              | 12          | 0     | 2             | 0             | 1             | 0             | 0             | 0             | 0            | 0            | 0            | 82    |
|             | 0     | 279             | 59          | 0     | 7             | 0             | 1             | 3             | 1             | 0             | 0            | 0            | 0            | 350   |
| 20:00       | 0     | 59              | 9           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 69    |
| 20:15       | 0     | 55              | 19          | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 74    |
| 20:30       | 0     | 52              | 8           | 1     | 0             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 62    |
| 20:45       | 1     | 37              | 13          | 0     | 2             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 53    |
|             | 1     | 203             | 49          | 1     | 3             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 258   |
| 21:00       | 0     | 32              | 13          | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 45    |
| 21:15       | 1     | 25              | 7           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 34    |
| 21:30       | 0     | 33              | 6           | 0     | 1             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 41    |
| 21:45       | 0     | 25              | 3           | 0     | 1             | 0             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 31    |
|             | 1     | 115             | 29          | 0     | 3             | 1             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 151   |
| 22:00       | 0     | 19              | 2           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 21    |
| 22:15       | 0     | 22              | 3           | 0     | 0             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 26    |
| 22:30       | 0     | 18              | 2           | 0     | 0             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 21    |
| 22:45       | 0     | 15              | 1           | 0     | 0             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 17    |
|             | 0     | 74              | 8           | 0     | 0             | 1             | 0             | 1             | 1             | 0             | 0            | 0            | 0            | 85    |
| 23:00       | 0     | 22              | 0           | 0     | 2             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 24    |
| 23:15       | 0     | 18              | 2           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 20    |
| 23:30       | 0     | 16              | 1           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 17    |
| 23:45       | 0     | 13              | 2           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 15    |
|             | 0     | 69              | 5           | 0     | 2             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 76    |
| Total       | 15    | 3553            | 776         | 8     | 84            | 26            | 3             | 26            | 19            | 1             | 1            | 3            | 0            | 4515  |
| Percent     | 0.3%  | 78.7%           | 17.2%       | 0.2%  | 1.9%          | 0.6%          | 0.1%          | 0.6%          | 0.4%          | 0.0%          | 0.0%         | 0.1%         | 0.0%         |       |
| Grand Total | 20    | 5028            | 1149        | 15    | 144           | 41            | 5             | 34            | 34            | 1             | 1            | 4            | 0            | 6476  |
| Percent     | 0.3%  | 77.6%           | 17.7%       | 0.2%  | 2.2%          | 0.6%          | 0.1%          | 0.5%          | 0.5%          | 0.0%          | 0.0%         | 0.1%         | 0.0%         |       |

# All Traffic Data Services

[www.alltrafficdata.net](http://www.alltrafficdata.net)

Site Code: 1

Station ID: 1

OLD CORNEILIA HWY WEST OF OCONEE CIRCLE

Latitude: 0' 0.0000 Undefined

Longitude: 0' 0.0000 Undefined

WB

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|------------|-------|-----------------|-------------|-------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|-------|
| 02/17/21   | 0     | 2               | 0           | 0     | 0             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 3     |
| 00:15      | 0     | 7               | 0           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 8     |
| 00:30      | 0     | 5               | 0           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 5     |
| 00:45      | 0     | 1               | 0           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 1     |
|            | 0     | 15              | 0           | 0     | 1             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 17    |
| 01:00      | 0     | 1               | 1           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 2     |
| 01:15      | 0     | 3               | 1           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 4     |
| 01:30      | 0     | 2               | 1           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 3     |
| 01:45      | 0     | 1               | 0           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 1     |
|            | 0     | 7               | 3           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 10    |
| 02:00      | 0     | 1               | 1           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 2     |
| 02:15      | 0     | 3               | 0           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 4     |
| 02:30      | 0     | 1               | 0           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 2     |
| 02:45      | 0     | 0               | 0           | 0     | 0             | 0             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 2     |
|            | 0     | 5               | 1           | 0     | 2             | 0             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 10    |
| 03:00      | 0     | 2               | 0           | 0     | 1             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 4     |
| 03:15      | 0     | 4               | 4           | 0     | 0             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 9     |
| 03:30      | 0     | 4               | 0           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 4     |
| 03:45      | 0     | 6               | 0           | 0     | 0             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 7     |
|            | 0     | 16              | 4           | 0     | 1             | 1             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 24    |
| 04:00      | 0     | 7               | 2           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 9     |
| 04:15      | 0     | 9               | 2           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 12    |
| 04:30      | 0     | 12              | 7           | 0     | 1             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 21    |
| 04:45      | 0     | 19              | 2           | 0     | 2             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 24    |
|            | 0     | 47              | 13          | 0     | 4             | 1             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 66    |
| 05:00      | 0     | 17              | 6           | 0     | 1             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 25    |
| 05:15      | 0     | 34              | 5           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 40    |
| 05:30      | 0     | 48              | 10          | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 58    |
| 05:45      | 0     | 40              | 18          | 1     | 1             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 61    |
|            | 0     | 139             | 39          | 1     | 3             | 0             | 0             | 1             | 1             | 0             | 0            | 0            | 0            | 184   |
| 06:00      | 0     | 55              | 13          | 0     | 2             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 70    |
| 06:15      | 0     | 88              | 25          | 0     | 14            | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 128   |
| 06:30      | 0     | 92              | 23          | 0     | 4             | 0             | 0             | 2             | 0             | 0             | 0            | 0            | 0            | 121   |
| 06:45      | 0     | 113             | 24          | 0     | 4             | 1             | 0             | 2             | 0             | 0             | 0            | 0            | 0            | 144   |
|            | 0     | 348             | 85          | 0     | 24            | 1             | 0             | 4             | 1             | 0             | 0            | 0            | 0            | 463   |
| 07:00      | 0     | 115             | 37          | 0     | 7             | 1             | 0             | 0             | 0             | 1             | 0            | 0            | 0            | 161   |
| 07:15      | 0     | 149             | 41          | 1     | 5             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 197   |
| 07:30      | 0     | 168             | 42          | 1     | 7             | 1             | 0             | 2             | 0             | 0             | 0            | 0            | 0            | 221   |
| 07:45      | 0     | 178             | 42          | 1     | 3             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 225   |
|            | 0     | 610             | 162         | 3     | 22            | 3             | 0             | 3             | 0             | 1             | 0            | 0            | 0            | 804   |
| 08:00      | 0     | 137             | 36          | 2     | 10            | 0             | 0             | 3             | 1             | 0             | 0            | 0            | 0            | 189   |
| 08:15      | 0     | 117             | 32          | 2     | 8             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 160   |
| 08:30      | 0     | 102             | 30          | 2     | 9             | 1             | 0             | 1             | 1             | 0             | 0            | 0            | 0            | 146   |
| 08:45      | 0     | 86              | 17          | 0     | 4             | 2             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 110   |
|            | 0     | 442             | 115         | 6     | 31            | 3             | 0             | 5             | 3             | 0             | 0            | 0            | 0            | 605   |
| 09:00      | 1     | 58              | 21          | 0     | 6             | 2             | 0             | 1             | 2             | 0             | 0            | 0            | 0            | 91    |
| 09:15      | 0     | 77              | 20          | 0     | 5             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 103   |
| 09:30      | 0     | 70              | 30          | 0     | 6             | 2             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 108   |
| 09:45      | 0     | 75              | 27          | 0     | 3             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 106   |
|            | 1     | 280             | 98          | 0     | 20            | 4             | 0             | 1             | 4             | 0             | 0            | 0            | 0            | 408   |
| 10:00      | 0     | 58              | 20          | 0     | 8             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 86    |
| 10:15      | 0     | 70              | 28          | 2     | 3             | 1             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 105   |
| 10:30      | 0     | 72              | 22          | 0     | 4             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 99    |
| 10:45      | 0     | 78              | 12          | 0     | 2             | 0             | 0             | 1             | 1             | 0             | 0            | 0            | 0            | 94    |
|            | 0     | 278             | 82          | 2     | 17            | 1             | 0             | 3             | 1             | 0             | 0            | 0            | 0            | 384   |
| 11:00      | 0     | 63              | 21          | 0     | 0             | 1             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 86    |
| 11:15      | 0     | 70              | 22          | 0     | 2             | 1             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 96    |
| 11:30      | 0     | 85              | 16          | 0     | 3             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 105   |
| 11:45      | 0     | 67              | 24          | 0     | 3             | 1             | 0             | 2             | 0             | 0             | 0            | 0            | 0            | 97    |
|            | 0     | 285             | 83          | 0     | 8             | 3             | 0             | 3             | 2             | 0             | 0            | 0            | 0            | 384   |
| Total      | 1     | 2472            | 685         | 12    | 133           | 17            | 0             | 20            | 18            | 1             | 0            | 0            | 0            | 3359  |
| Percent    | 0.0%  | 73.6%           | 20.4%       | 0.4%  | 4.0%          | 0.5%          | 0.0%          | 0.6%          | 0.5%          | 0.0%          | 0.0%         | 0.0%         | 0.0%         |       |

# All Traffic Data Services

[www.alltrafficdata.net](http://www.alltrafficdata.net)

Site Code: 1

Station ID: 1

OLD CORNEILIA HWY WEST OF OCONEE CIRCLE

Latitude: 0' 0.0000 Undefined

Longitude: 0' 0.0000 Undefined

WB

| Start Time  | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|-------------|-------|-----------------|-------------|-------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|-------|
| 12 PM       | 0     | 64              | 24          | 0     | 2             | 0             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 92    |
| 12:15       | 0     | 76              | 24          | 0     | 2             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 103   |
| 12:30       | 0     | 68              | 19          | 0     | 8             | 1             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 98    |
| 12:45       | 0     | 80              | 20          | 0     | 1             | 1             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 103   |
|             | 0     | 288             | 87          | 0     | 13            | 3             | 0             | 1             | 4             | 0             | 0            | 0            | 0            | 396   |
| 13:00       | 1     | 78              | 25          | 1     | 4             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 109   |
| 13:15       | 0     | 46              | 19          | 1     | 1             | 2             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 69    |
| 13:30       | 0     | 85              | 25          | 0     | 5             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 116   |
| 13:45       | 0     | 73              | 13          | 0     | 2             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 88    |
|             | 1     | 282             | 82          | 2     | 12            | 2             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 382   |
| 14:00       | 0     | 60              | 16          | 0     | 4             | 2             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 83    |
| 14:15       | 0     | 74              | 15          | 1     | 5             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 96    |
| 14:30       | 0     | 70              | 13          | 1     | 4             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 89    |
| 14:45       | 0     | 77              | 22          | 0     | 4             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 104   |
|             | 0     | 281             | 66          | 2     | 17            | 5             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 372   |
| 15:00       | 0     | 39              | 12          | 0     | 8             | 1             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 61    |
| 15:15       | 0     | 117             | 20          | 0     | 4             | 1             | 0             | 2             | 0             | 0             | 0            | 0            | 0            | 144   |
| 15:30       | 0     | 86              | 23          | 0     | 6             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 115   |
| 15:45       | 0     | 120             | 29          | 0     | 2             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 152   |
|             | 0     | 362             | 84          | 0     | 20            | 3             | 0             | 3             | 0             | 0             | 0            | 0            | 0            | 472   |
| 16:00       | 0     | 125             | 24          | 0     | 7             | 0             | 0             | 3             | 1             | 0             | 0            | 0            | 0            | 160   |
| 16:15       | 0     | 95              | 18          | 1     | 3             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 117   |
| 16:30       | 0     | 90              | 13          | 0     | 2             | 2             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 107   |
| 16:45       | 0     | 77              | 36          | 0     | 3             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 116   |
|             | 0     | 387             | 91          | 1     | 15            | 2             | 0             | 3             | 1             | 0             | 0            | 0            | 0            | 500   |
| 17:00       | 0     | 96              | 21          | 0     | 4             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 121   |
| 17:15       | 0     | 106             | 29          | 0     | 4             | 2             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 141   |
| 17:30       | 1     | 74              | 16          | 0     | 2             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 93    |
| 17:45       | 0     | 81              | 24          | 0     | 5             | 1             | 0             | 2             | 0             | 0             | 0            | 0            | 0            | 113   |
|             | 1     | 357             | 90          | 0     | 15            | 3             | 0             | 2             | 0             | 0             | 0            | 0            | 0            | 468   |
| 18:00       | 0     | 102             | 21          | 0     | 3             | 1             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 127   |
| 18:15       | 0     | 78              | 19          | 1     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 98    |
| 18:30       | 0     | 80              | 12          | 0     | 5             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 98    |
| 18:45       | 0     | 63              | 15          | 0     | 2             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 80    |
|             | 0     | 323             | 67          | 1     | 10            | 1             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 403   |
| 19:00       | 0     | 55              | 15          | 1     | 3             | 0             | 0             | 1             | 0             | 0             | 0            | 0            | 0            | 75    |
| 19:15       | 0     | 58              | 11          | 0     | 2             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 71    |
| 19:30       | 0     | 38              | 15          | 0     | 2             | 0             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 57    |
| 19:45       | 1     | 28              | 9           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 38    |
|             | 1     | 179             | 50          | 1     | 7             | 0             | 0             | 1             | 2             | 0             | 0            | 0            | 0            | 241   |
| 20:00       | 1     | 36              | 7           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 44    |
| 20:15       | 0     | 29              | 8           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 38    |
| 20:30       | 0     | 34              | 9           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 43    |
| 20:45       | 0     | 22              | 5           | 0     | 2             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 29    |
|             | 1     | 121             | 29          | 0     | 3             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 154   |
| 21:00       | 0     | 28              | 2           | 0     | 2             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 32    |
| 21:15       | 0     | 31              | 3           | 1     | 3             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 38    |
| 21:30       | 0     | 22              | 4           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 27    |
| 21:45       | 0     | 27              | 2           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 29    |
|             | 0     | 108             | 11          | 1     | 6             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 126   |
| 22:00       | 0     | 13              | 5           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 18    |
| 22:15       | 0     | 15              | 6           | 0     | 1             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 23    |
| 22:30       | 0     | 15              | 0           | 0     | 1             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 16    |
| 22:45       | 0     | 7               | 3           | 0     | 0             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 11    |
|             | 0     | 50              | 14          | 0     | 2             | 0             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 68    |
| 23:00       | 0     | 10              | 1           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 11    |
| 23:15       | 0     | 7               | 1           | 0     | 0             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 9     |
| 23:30       | 0     | 8               | 1           | 0     | 0             | 0             | 0             | 0             | 0             | 0             | 0            | 0            | 0            | 9     |
| 23:45       | 0     | 2               | 1           | 0     | 0             | 0             | 0             | 0             | 1             | 0             | 0            | 0            | 0            | 4     |
|             | 0     | 27              | 4           | 0     | 0             | 0             | 0             | 0             | 2             | 0             | 0            | 0            | 0            | 33    |
| Total       | 4     | 2765            | 675         | 8     | 120           | 19            | 0             | 12            | 12            | 0             | 0            | 0            | 0            | 3615  |
| Percent     | 0.1%  | 76.5%           | 18.7%       | 0.2%  | 3.3%          | 0.5%          | 0.0%          | 0.3%          | 0.3%          | 0.0%          | 0.0%         | 0.0%         | 0.0%         |       |
| Grand Total | 5     | 5237            | 1360        | 20    | 253           | 36            | 0             | 32            | 30            | 1             | 0            | 0            | 0            | 6974  |
| Percent     | 0.1%  | 75.1%           | 19.5%       | 0.3%  | 3.6%          | 0.5%          | 0.0%          | 0.5%          | 0.4%          | 0.0%          | 0.0%         | 0.0%         | 0.0%         |       |



## APPENDIX D

### GDOT COUNT STATION DATA



0000139\_0210 - 139-0210

Description: SR 001100 BEG AT

County: Hall

Route number: 00145700

LRS section: 1392145700

Functional class: 4U - Minor Arterial (Urban)

Coordinates: 34.3155664, -83.78105939

### Site Data



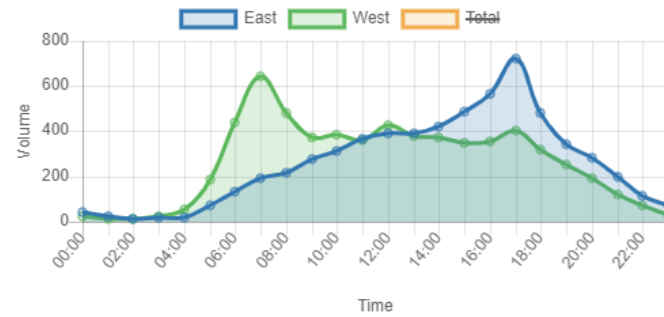
### Count History

| Year | Month     | Count type | Duration | Count |
|------|-----------|------------|----------|-------|
| 2020 | July      | Class      | 48 hours | 12442 |
| 2018 | September | Class      | 48 hours | 14113 |
| 2016 | July      | Class      | 48 hours | 11184 |
| 2012 | February  | Class      | 48 hours | 10964 |

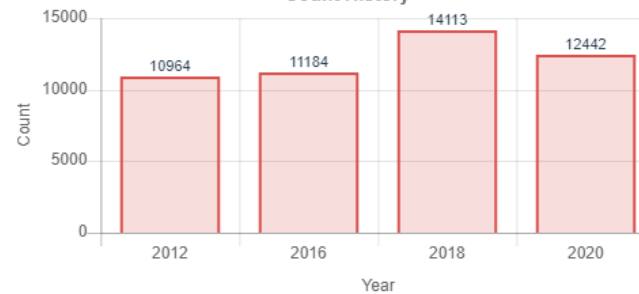
### Annual Statistics

| Data Item       | 2010  | 2011  | 2012 | 2013 | 2014 | 2015      | 2016   | 2017      | 2018   | 2019      |
|-----------------|-------|-------|------|------|------|-----------|--------|-----------|--------|-----------|
| Statistics type | -     | -     | -    | -    | -    | Estimated | Actual | Estimated | Actual | Estimated |
| AADT            | 10900 | 10600 | 9680 | 9620 | 9620 | 9940      | 10700  | 10800     | 12900  | 13000     |
| K-Factor        | -     | -     | -    | -    | -    | -         | 0.099  | -         | 0.109  | 0.109     |
| D-Factor        | -     | -     | -    | -    | -    | -         | 0.700  | -         | 0.720  | 0.720     |
| Future AADT     | -     | -     | -    | -    | -    | -         | 11700  | 13800     | 16300  | 17300     |

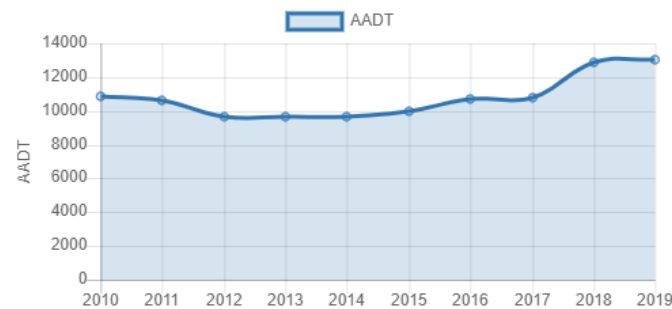
### Average Hourly Volume



### Count History



### AADT Trend



### FHWA Vehicle Classification

|                                                                                             |  |        |
|---------------------------------------------------------------------------------------------|--|--------|
| 1. Motorcycles<br>2 axes, 2 or 3 wheels.                                                    |  | 0.49%  |
| 2. Passenger cars<br>2 axes. Can have 1- or 2-<br>axle trailers.                            |  | 68.35% |
| 3. Pickups, panels, vans<br>2-axle, 4-tire single units. Can<br>have 1- or 2-axle trailers. |  | 25.11% |
| 4. Buses<br>2- or 3-axle, full length.                                                      |  | 0.18%  |
| 5. Single-unit trucks<br>2-axle, 6-tire, (dual rear tires),<br>single-unit trucks.          |  | 3.87%  |
| 6. Single-unit trucks<br>3-axle, single-unit trucks.                                        |  | 0.69%  |
| 7. Single-unit trucks<br>4 or more axle, single-unit<br>trucks.                             |  | 0.01%  |
| 8. Single-trailer trucks<br>3- or 4-axle, single-trailer<br>trucks.                         |  | 0.81%  |
| 9. Single-trailer trucks<br>5-axle, single-trailer trucks.                                  |  | 0.46%  |
| 10. Single-trailer trucks<br>6 or more axle, single-trailer<br>trucks.                      |  | 0.02%  |
| 11. Multi-trailer trucks<br>5 or less axle, multi-trailer<br>trucks.                        |  | 0%     |
| 12. Multi-trailer trucks<br>6-axle, multi-trailer trucks.                                   |  | 0%     |
| 13. Multi-trailer trucks<br>7 or more axle, multi-trailer<br>trucks.                        |  | 0.02%  |

0000139\_0223 - 139-0223

County: Hall

Route number: 00145700

LRS section: 1392145700

Functional class: 4U - Minor Arterial (Urban)

Coordinates: 34.3148687108439, -83.7633518913534

## Site Data



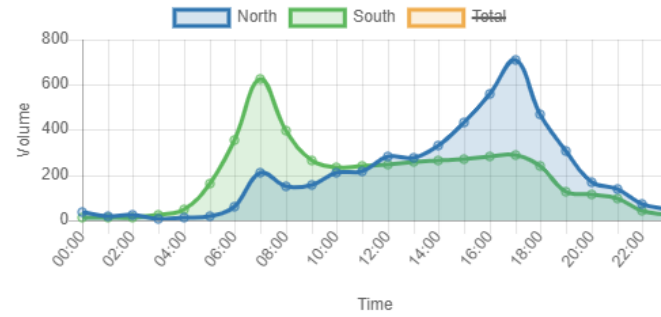
## Count History

| Year | Month     | Count type | Duration | Count |
|------|-----------|------------|----------|-------|
| 2019 | January   | Class      | 48 hours | 9540  |
| 2015 | June      | Volume     | 48 hours | 9300  |
| 2011 | September | Volume     | 48 hours | 9170  |

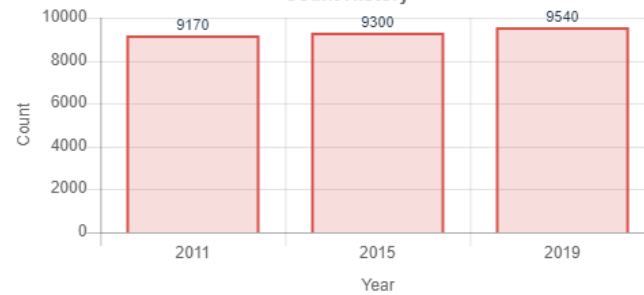
## Annual Statistics

| Data Item       | 2010 | 2011 | 2012 | 2013 | 2014 | 2015   | 2016      | 2017      | 2018      | 2019   |
|-----------------|------|------|------|------|------|--------|-----------|-----------|-----------|--------|
| Statistics type | -    | -    | -    | -    | -    | Actual | Estimated | Estimated | Estimated | Actual |
| AADT            | 7890 | 8380 | 8260 | 8440 | 8440 | 8540   | 8790      | 8850      | 8780      | 9440   |
| K-Factor        | -    | -    | -    | -    | -    | 0.107  | 0.107     | -         | -         | 0.122  |
| D-Factor        | -    | -    | -    | -    | -    | 0.500  | 0.500     | -         | -         | 0.710  |
| Future AADT     | -    | -    | -    | -    | -    | -      | 9940      | 11300     | 11100     | 11900  |

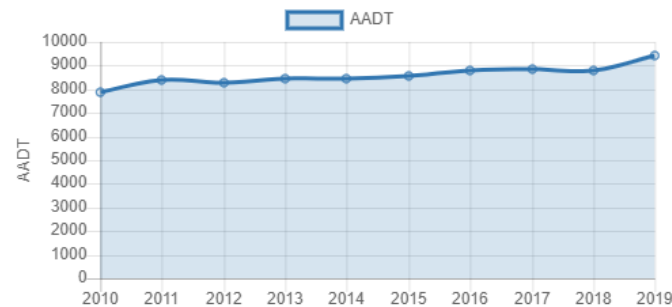
## Average Hourly Volume



## Count History



## AADT Trend



## FHWA Vehicle Classification

|                                                                                             |  |        |
|---------------------------------------------------------------------------------------------|--|--------|
| 1. Motorcycles<br>2 axes, 2 or 3 wheels.                                                    |  | 0.08%  |
| 2. Passenger cars<br>2 axes. Can have 1- or 2-<br>axle trailers.                            |  | 72.56% |
| 3. Pickups, panels, vans<br>2-axle, 4-tire single units. Can<br>have 1- or 2-axle trailers. |  | 22.76% |
| 4. Buses<br>2- or 3-axle, full length.                                                      |  | 0.25%  |
| 5. Single-unit trucks<br>2-axle, 6-tire, (dual rear tires),<br>single-unit trucks.          |  | 3.14%  |
| 6. Single-unit trucks<br>3-axle, single-unit trucks.                                        |  | 0.33%  |
| 7. Single-unit trucks<br>4 or more axle, single-unit<br>trucks.                             |  | 0.02%  |
| 8. Single-trailer trucks<br>3- or 4-axle, single-trailer<br>trucks.                         |  | 0.37%  |
| 9. Single-trailer trucks<br>5-axle, single-trailer trucks.                                  |  | 0.46%  |
| 10. Single-trailer trucks<br>6 or more axle, single-trailer<br>trucks.                      |  | 0.04%  |
| 11. Multi-trailer trucks<br>5 or less axle, multi-trailer<br>trucks.                        |  | 0%     |
| 12. Multi-trailer trucks<br>6-axle, multi-trailer trucks.                                   |  | 0%     |
| 13. Multi-trailer trucks<br>7 or more axle, multi-trailer<br>trucks.                        |  | 0.02%  |

## APPENDIX E

### CRASH DATA



| AccidentNo | AgencyName                   | Date      | Time     | County | Route                | IntersectingRoute | CrashSeverity | Injuries | Fatalities | MannerOfCollision                    | LocationOfImpact              | DriverAge1 | DriverAge2 | DirVeh1  | DirVeh2 | MnvrVeh1            | MnvrVeh2 | U1FirstHarmfulEvent     | U2FirstHarmfulEvent     |
|------------|------------------------------|-----------|----------|--------|----------------------|-------------------|---------------|----------|------------|--------------------------------------|-------------------------------|------------|------------|----------|---------|---------------------|----------|-------------------------|-------------------------|
| 5842103    | Hall County Sheriff's Office | 7/14/2016 | 3:49:00  | HALL   | OLD CORNELIA HWY     | DANA DR           | C             |          | 1          | 0 Not A Collision with Motor Vehicle | Off Roadway                   | 59         |            | -1 North | N/A     | Negotiating A Curve | N/A      | Curb                    | N/A                     |
| 6735663    | Hall County Sheriff's Office | 6/5/2018  | 0:00:00  | HALL   | DANA DR              | OLD CORNELIA HWY  | O             |          | 0          | 0 Not A Collision with Motor Vehicle | Off Roadway                   | 33         |            | -1 North | N/A     | Negotiating A Curve | N/A      | Curb                    | N/A                     |
| 7724878    | Gsp Post 00                  | 8/27/2019 | 7:47:00  | HALL   | OLD CORNELIA HIGHWAY | DANA DRIVE        | O             |          | 0          | 0 Rear End                           | On Roadway - Non-Intersection | 27         |            | 38 South | South   | Straight            | Stopped  | Motor Vehicle In Motion | Motor Vehicle In Motion |
| 7591584    | Gsp Post 00                  | 3/10/2020 | 14:30:00 | HALL   | OLD CORNELIA HIGHWAY | DANA ROAD         | O             |          | 0          | 0 Angle                              | On Roadway - Non-Intersection | 38         |            | 86 West  | West    | Making U-turn       | Passing  | Motor Vehicle In Motion | Motor Vehicle In Motion |



6392342 Hall County Sheriff's Office      9/12/2017   7:00:00   HALL   OLD CORNELIA   HWY   DANA CIR   O   0   0   Rear End   On Roadway - Roadway Intersection      60   71   East   East   Straight   Stopped   Motor Vehicle In Motion      Motor Vehicle In Motion

| AccidentNo | AgencyName                   | Date       | Time     | County | Route                          | IntersectingRoute             | CrashSeverity | Injuries | Fatalities | MannerOfCollision                    | LocationOfImpact                  | DriverAge1 | DriverAge2 | DirVeh1  | DirVeh2 | MnvrVeh1                 | MnvrVeh2            | U1FirstHarmfulEvent       | U2FirstHarmfulEvent     |
|------------|------------------------------|------------|----------|--------|--------------------------------|-------------------------------|---------------|----------|------------|--------------------------------------|-----------------------------------|------------|------------|----------|---------|--------------------------|---------------------|---------------------------|-------------------------|
| 5800638    | Gsp Post 00                  | 6/18/2016  | 8:36:00  | HALL   | RABBIT TOWN CAFE PARKING LOT   |                               | 0             | 0        | 0          | 0 Not A Collision with Motor Vehicle | On Roadway - Non-Intersection     | 88         |            | 21 South | North   | Backing                  | Parked              | Parked Motor Vehicle      | Parked Motor Vehicle    |
| 5987077    | Gsp Post 00                  | 11/3/2016  | 15:42:00 | HALL   | 2415A OLD CORNELIA HWY         |                               | 0             | 0        | 0          | 0 Rear End                           | On Roadway - Non-Intersection     | 38         |            | 21 None  | None    | Backing                  | Stopped             | Motor Vehicle In Motion   | Motor Vehicle In Motion |
| 5998337    | Gsp Post 00                  | 11/13/2016 | 20:43:00 | HALL   | GA 369 EASTBOUND               | WEST OF HAMILTON ROAD         | 0             | 0        | 0          | 0 Not A Collision with Motor Vehicle | On Roadway - Roadway Intersection | 24         |            | -1 East  | N/A     | Negotiating A Curve      | N/A                 | Animal                    | N/A                     |
| 6041249    | Gsp Post 00                  | 12/14/2016 | 13:42:00 | HALL   | OLD CORNELIA HWY SOUTH OF MG D |                               | B             | 1        | 0          | 0 Angle                              | On Shoulder                       | 41         |            | -1 South | N/A     | Straight                 | N/A                 | Tree                      | N/A                     |
| 6087123    | Gsp Post 00                  | 1/18/2017  | 15:40:00 | HALL   | OLD CORNELIA HWY OCONEE CIR    |                               | 0             | 0        | 0          | 0 Angle                              | On Roadway - Non-Intersection     | 74         |            | 28 East  | West    | Turning Left             | Straight            | Motor Vehicle In Motion   | Motor Vehicle In Motion |
| 6160709    | Hall County Sheriff's Office | 1/25/2017  | 22:41:00 | HALL   | OLD COCNELIA HWY               | OCONEE CIRCLE                 | B             | 1        | 0          | 0 Not A Collision with Motor Vehicle | On Shoulder                       | 62         |            | -1 East  | N/A     | Turning Left             | N/A                 | Highway Traffic Sign Post | N/A                     |
| 6137002    | Gsp Post 00                  | 3/1/2017   | 13:21:00 | HALL   | PARKING LOT RABBITOWN CAFE     |                               | 0             | 0        | 0          | 0 Angle                              | On Roadway - Non-Intersection     | 77         |            | 59 South | North   | Backing                  | Parked              | Parked Motor Vehicle      | Parked Motor Vehicle    |
| 6151425    | Gsp Post 00                  | 3/15/2017  | 7:47:00  | HALL   | OLDCORNELIA HIGHWAY            | 50 FEET EAST OF OCONEE CIRCLE | 0             | 0        | 0          | 0 Angle                              | On Roadway - Non-Intersection     | 36         |            | 44 South | West    | Changing Lanes           | Negotiating A Curve | Motor Vehicle In Motion   | Motor Vehicle In Motion |
| 6176416    | Gsp Post 00                  | 4/2/2017   | 13:12:00 | HALL   | OLD CORNELIA HIGHWAY EAST OF   |                               | 0             | 0        | 0          | 0 Sideswipe-Same Direction           | On Roadway - Non-Intersection     | 22         |            | 70 East  | East    | Changing Lanes           | Turning Left        | Motor Vehicle In Motion   | Motor Vehicle In Motion |
| 6281836    | Gsp Post 00                  | 6/20/2017  | 16:45:00 | HALL   | SR369 OLD CORNELIA HWY OCONE   |                               | B             | 2        | 0          | 0 Head On                            | On Roadway - Non-Intersection     | 44         |            | 25 East  | West    | Turning Left             | Straight            | Motor Vehicle In Motion   | Motor Vehicle In Motion |
| 6344422    | Gsp Post 00                  | 8/5/2017   | 19:46:00 | HALL   | OCONEE CIRCLE                  | NORTH OF OLD CORNELIA HIGHWAY | 0             | 0        | 0          | 0 Rear End                           | On Roadway - Non-Intersection     | 41         |            | 51 South | South   | Straight                 | Stopped             | Motor Vehicle In Motion   | Motor Vehicle In Motion |
| 6359696    | Gsp Post 00                  | 8/18/2017  | 14:43:00 | HALL   | 2310 OLD CORNELIA HIGHWAY      |                               | 0             | 0        | 0          | 0 Angle                              | On Roadway - Non-Intersection     | 59         |            | 26 None  | None    | Backing                  | Stopped             | Motor Vehicle In Motion   | Motor Vehicle In Motion |
| 6493354    | Gsp Post 00                  | 10/14/2017 | 17:29:00 | HALL   | 2415 OLD CORNELIA HIGHWAY      | RABBITTOWN CAFE PARKING LOT   | 0             | 0        | 0          | 0 Not A Collision with Motor Vehicle | On Roadway - Non-Intersection     | 38         |            | -1 North | N/A     | Parked                   | N/A                 | Motor Vehicle In Motion   | N/A                     |
| 6459451    | Gsp Post 00                  | 11/4/2017  | 13:02:00 | HALL   | 2415 OLD CORNELIA HWY          | PETROFAST PARKING LOT         | 0             | 0        | 0          | 0 Sideswipe-Same Direction           | On Roadway - Non-Intersection     | 43         |            | 29 None  | West    | Backing                  | Parked              | Parked Motor Vehicle      | Parked Motor Vehicle    |
| 6569769    | Gsp Post 00                  | 1/28/2018  | 12:31:00 | HALL   | 2415 OLD CORNELIA HIGHWAY      | RABBITTOWN CAFE PARKING LOT   | 0             | 0        | 0          | 0 Angle                              | On Roadway - Non-Intersection     | 36         |            | 28 West  | South   | Straight                 | Straight            | Motor Vehicle In Motion   | Motor Vehicle In Motion |
| 6773607    | Gsp Post 00                  | 6/28/2018  | 12:55:00 | HALL   | OLD CORNELIA HWY               | OCONEE CIR                    | 0             | 0        | 0          | 0 Sideswipe-Same Direction           | Private Property                  | 79         |            | 73 West  | North   | Turning Right            | Parked              | Parked Motor Vehicle      | Motor Vehicle In Motion |
| 6801776    | Gsp Post 00                  | 7/23/2018  | 10:18:00 | HALL   | 2415 OLD CORNELIA HIGHWAY      | CHEVRON GAS STATION           | 0             | 0        | 0          | 0 Sideswipe-Same Direction           | Private Property                  | 0          |            | 50 North | South   | Straight                 | Parked              | Parked Motor Vehicle      | Motor Vehicle In Motion |
| 6836142    | Gsp Post 00                  | 8/15/2018  | 12:09:00 | HALL   | 2415 OLD CORNELIA HIGHWAY      | RABBITTOWN CAFE PARKING LOT   | 0             | 0        | 0          | 0 Rear End                           | Private Property                  | 68         |            | 51 North | West    | Turning Left             | Parked              | Parked Motor Vehicle      | Motor Vehicle In Motion |
| 6847772    | Gsp Post 00                  | 8/24/2018  | 19:05:00 | HALL   | OCONEE CIRCLE                  | OLD CORNELIA HIGHWAY          | 0             | 0        | 0          | 0 Rear End                           | On Roadway - Roadway Intersection | 20         |            | 63 South | South   | Straight                 | Stopped             | Motor Vehicle In Motion   | Motor Vehicle In Motion |
| 7241304    | Gsp Post 00                  | 6/10/2019  | 8:21:00  | HALL   | 2415 OLD CORNELIA HIGHWAY      |                               | 0             | 0        | 0          | 0 Sideswipe-Same Direction           | Private Property                  | 26         |            | 20 East  | East    | Entering/Leaving Parking | Straight            | Motor Vehicle In Motion   | Motor Vehicle In Motion |
| 7470993    | Gsp Post 00                  | 12/8/2019  | 9:59:00  | HALL   | OLD CORNELIA HIGHWAY           | OCONEE CIRCLE                 | B             | 3        | 0          | 0 Angle                              | On Roadway - Roadway Intersection | 46         |            | 23 South | East    | Straight                 | Negotiating A Curve | Motor Vehicle In Motion   | Motor Vehicle In Motion |
| 7586080    | Gsp Post 00                  | 1/17/2020  | 8:23:00  | HALL   | OLD CORNELIA HWY               | OCONEE CIRCLE                 | C             | 1        | 0          | 0 Angle                              | On Roadway - Roadway Intersection | 71         |            | 56 North | West    | Straight                 | Straight            | Motor Vehicle In Motion   | Motor Vehicle In Motion |
| 7584540    | Gsp Post 00                  | 1/31/2020  | 7:26:00  | HALL   | OCONEE CIRCLE                  | OLD CORNELIA HIGHWAY          | 0             | 0        | 0          | 0 Not A Collision with Motor Vehicle | On Roadway - Non-Intersection     | 33         |            | -1 West  | N/A     | Straight                 | N/A                 | Deer                      | N/A                     |
| 7590193    | Gsp Post 00                  | 3/4/2020   | 15:39:00 | HALL   | OLD CORNELIA HIGHWAY           | OCONEE CIRCLE                 | 0             | 0        | 0          | 0 Sideswipe-Same Direction           | On Roadway - Roadway Intersection | 77         |            | 51 East  | East    | Changing Lanes           | Straight            | Motor Vehicle In Motion   | Motor Vehicle In Motion |

## APPENDIX F

### HALL COUNTY STRATEGIC PLAN

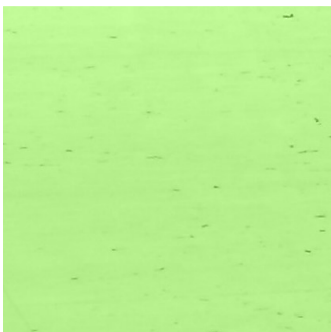




A STRATEGIC PLAN FOR

# HALL COUNTY

2018-2028



Carl Vinson Institute of Government  
UNIVERSITY OF GEORGIA

## Existing Plan Review

Institute faculty, with input from the Steering Committee, conducted a plan review to highlight initiatives, projects, and programs underway in Hall County. The plan review identified the major focus of each plan, successes achieved under each plan, and the status of each.

The following seven plans were reviewed:

- 2017 Hall County Economic Development Report
- Gainesville–Hall County Economic Development Council FY 2018 Marketing Plan
- Hall County Forward: 2017 Hall County Comprehensive Plan
- Hall County Fire Services 2016 Annual Report
- Hall County Annual Budget Guide FY 2018
- 2017 Hall County Service Delivery Strategy
- North and South Hall Sewer Master Plans

These documents were presented to the stakeholders to further develop their knowledge base. The information from the plans was also used to inform the discussion of prioritizing action items in the coming years. These plans are the roadmap for achieving a community’s objectives. The strategic plan contains the turn-by-turn directions.

## Common Themes

The following themes are found in the seven major guidance documents and plans Hall County has adopted and were used to guide discussions around developing strategic priorities for the next 10 years.

### POPULATION GROWTH

Hall County is projected to more than double in population by 2040, from 179,684 in 2010 to 371,570, a 106.8% increase. Population growth in the unincorporated area alone is projected to slightly exceed the countywide increase at 110.3%. The greatest percentage population increase is expected to occur to the north and east of Gainesville, in particular along the Highway 365 corridor. Residential growth is being stimulated by available jobs in skilled manufacturing and health care, lower home prices, and a high quality of life.

### ECONOMIC INVESTMENT AND WORKFORCE DEVELOPMENT

Hall County has benefited tremendously from major local employers like Kubota and Northeast Georgia Medical Center. According to market research conducted by the Greater Hall Chamber of Commerce, desirable new businesses include skilled manufacturing, biotechnology, health care, food processing, and transportation and logistics. Guiding the growth of specific industries and businesses through careful planning is a next step for Hall County. With economic investment comes the need for a skilled workforce. Building new talent in these industries locally has been and continues to be a priority for Hall County and its partners.



## APPENDIX G

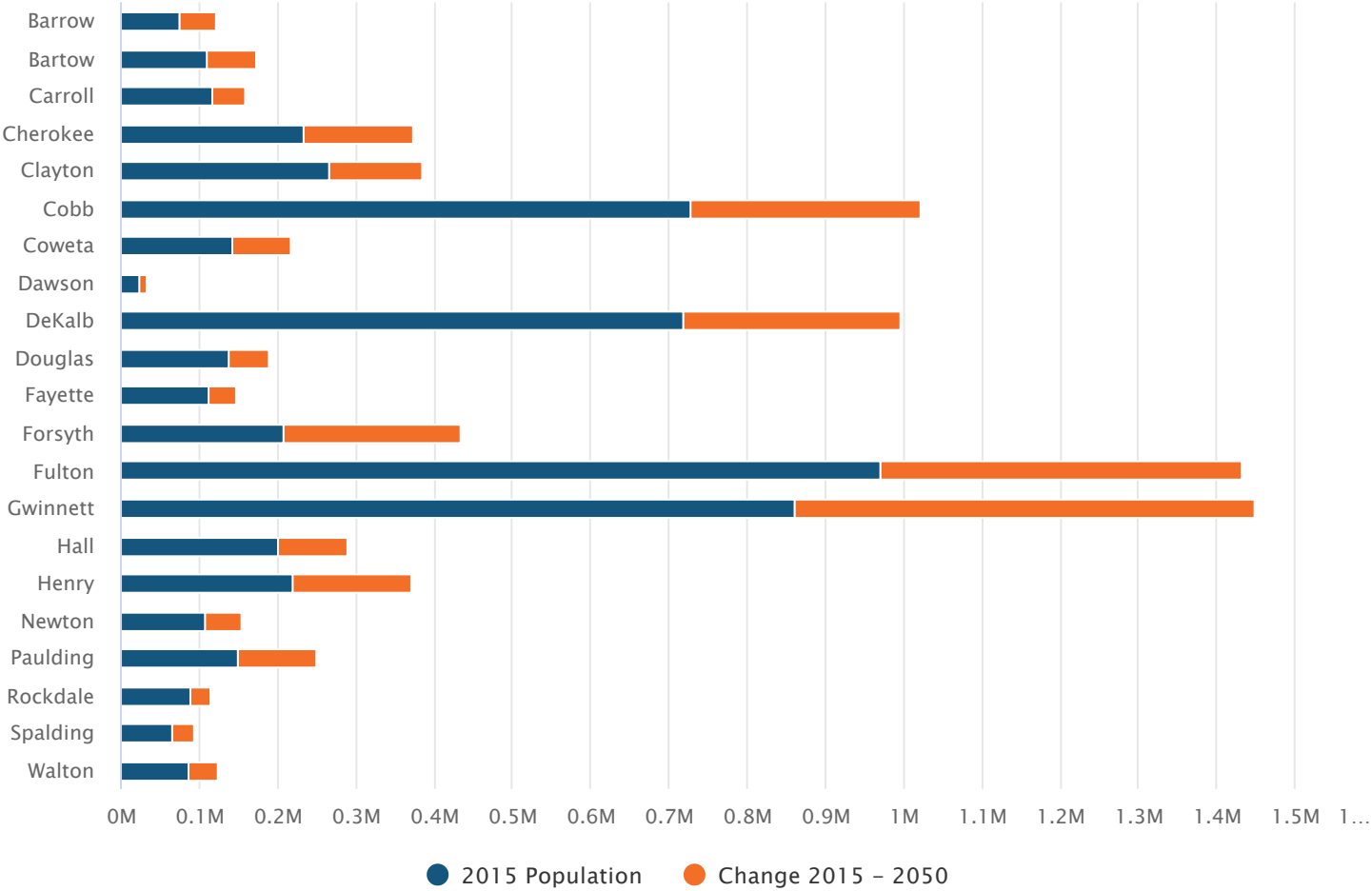
### ARC POPULATION FORECAST



# 2050 Population Forecast



Source: Atlanta Regional Commission



\*ARC's 2050 forecasts were developed using several growth scenarios for each county: a 'higher regional growth' scenario, a "slower regional growth" scenario, and a "preferred" scenario that serves as the official forecast number.

Powered by Highcharts Cloud

## APPENDIX H

### TRIP GENERATION DATA



## Trip Generation Summary

Alternative: Alternative 1

Phase: Phase 1

Project: 21-1015 Sussex TIS

Open Date: 3/31/2021

Analysis Date: 3/31/2021

| ITE                              | Land Use                         | Weekday Average Daily Trips |       |      |       | Weekday AM Peak Hour of Adjacent Street Traffic |       |      |       | Weekday PM Peak Hour of Adjacent Street Traffic |       |      |       |
|----------------------------------|----------------------------------|-----------------------------|-------|------|-------|-------------------------------------------------|-------|------|-------|-------------------------------------------------|-------|------|-------|
|                                  |                                  | *                           | Enter | Exit | Total | *                                               | Enter | Exit | Total | *                                               | Enter | Exit | Total |
| 210                              | SFHOUSE 2<br>190 Dwelling Units  |                             | 939   | 938  | 1877  |                                                 | 35    | 106  | 141   |                                                 | 118   | 70   | 188   |
| 210                              | SFHOUSE 1<br>436 Dwelling Units  |                             | 2058  | 2058 | 4116  |                                                 | 81    | 242  | 323   |                                                 | 272   | 160  | 432   |
| 221                              | MID-RISE 1<br>174 Dwelling Units |                             | 474   | 473  | 947   |                                                 | 16    | 47   | 63    |                                                 | 47    | 30   | 77    |
| 411                              | PUBLICPARK 1<br>20 Acres         |                             | 51    | 50   | 101   |                                                 | 0     | 0    | 0     |                                                 | 13    | 11   | 24    |
| Unadjusted Volume                |                                  |                             | 3522  | 3519 | 7041  |                                                 | 132   | 395  | 527   |                                                 | 450   | 271  | 721   |
| Internal Capture Trips           |                                  |                             | 0     | 0    | 0     |                                                 | 0     | 0    | 0     |                                                 | 0     | 0    | 0     |
| Pass-By Trips                    |                                  |                             | 0     | 0    | 0     |                                                 | 0     | 0    | 0     |                                                 | 0     | 0    | 0     |
| Volume Added to Adjacent Streets |                                  |                             | 3522  | 3519 | 7041  |                                                 | 132   | 395  | 527   |                                                 | 450   | 271  | 721   |

Total Weekday Average Daily Trips Internal Capture = 0 Percent

Total Weekday AM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

Total Weekday PM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

\* - Custom rate used for selected time period.

Source: Institute of Transportation Engineers, Trip Generation Manual 10th Edition

**TRIP GENERATION 10, TRAFFICWARE, LLC**

## Trip Generation Summary

Alternative: Alternative 1

Phase: Phase 2

Project: 21-1015 Sussex TIS

Open Date: 3/31/2021

Analysis Date: 3/31/2021

| ITE                              | Land Use           | Weekday Average Daily Trips |       |      |       | Weekday AM Peak Hour of Adjacent Street Traffic |       |      |       | Weekday PM Peak Hour of Adjacent Street Traffic |       |      |       |
|----------------------------------|--------------------|-----------------------------|-------|------|-------|-------------------------------------------------|-------|------|-------|-------------------------------------------------|-------|------|-------|
|                                  |                    | *                           | Enter | Exit | Total | *                                               | Enter | Exit | Total | *                                               | Enter | Exit | Total |
| 210                              | SFHOUSE 2          |                             | 939   | 938  | 1877  |                                                 | 35    | 106  | 141   |                                                 | 118   | 70   | 188   |
|                                  | 190 Dwelling Units |                             |       |      |       |                                                 |       |      |       |                                                 |       |      |       |
| 210                              | SFHOUSE 1          |                             | 2294  | 2294 | 4588  |                                                 | 90    | 270  | 360   |                                                 | 303   | 178  | 481   |
|                                  | 486 Dwelling Units |                             |       |      |       |                                                 |       |      |       |                                                 |       |      |       |
| 221                              | MID-RISE 1         |                             | 2517  | 2517 | 5034  |                                                 | 87    | 246  | 333   |                                                 | 248   | 159  | 407   |
|                                  | 924 Dwelling Units |                             |       |      |       |                                                 |       |      |       |                                                 |       |      |       |
| 411                              | PUBLICPARK 1       |                             | 51    | 50   | 101   |                                                 | 0     | 0    | 0     |                                                 | 13    | 11   | 24    |
|                                  | 20 Acres           |                             |       |      |       |                                                 |       |      |       |                                                 |       |      |       |
| Unadjusted Volume                |                    |                             | 5801  | 5799 | 11600 |                                                 | 212   | 622  | 834   |                                                 | 682   | 418  | 1100  |
| Internal Capture Trips           |                    |                             | 0     | 0    | 0     |                                                 | 0     | 0    | 0     |                                                 | 0     | 0    | 0     |
| Pass-By Trips                    |                    |                             | 0     | 0    | 0     |                                                 | 0     | 0    | 0     |                                                 | 0     | 0    | 0     |
| Volume Added to Adjacent Streets |                    |                             | 5801  | 5799 | 11600 |                                                 | 212   | 622  | 834   |                                                 | 682   | 418  | 1100  |

Total Weekday Average Daily Trips Internal Capture = 0 Percent

Total Weekday AM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

Total Weekday PM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

\* - Custom rate used for selected time period.

Source: Institute of Transportation Engineers, Trip Generation Manual 10th Edition

**TRIP GENERATION 10, TRAFFICWARE, LLC**



## Trip Generation Summary

Alternative: Alternative 1

Phase: Phase 3

Project: 21-1015 Sussex TIS

Open Date: 3/31/2021

Analysis Date: 3/31/2021

| ITE                              | Land Use                         | Weekday Average Daily Trips |       |      |       | Weekday AM Peak Hour of Adjacent Street Traffic |       |      |       | Weekday PM Peak Hour of Adjacent Street Traffic |       |      |       |
|----------------------------------|----------------------------------|-----------------------------|-------|------|-------|-------------------------------------------------|-------|------|-------|-------------------------------------------------|-------|------|-------|
|                                  |                                  | *                           | Enter | Exit | Total | *                                               | Enter | Exit | Total | *                                               | Enter | Exit | Total |
| 210                              | SFHOUSE 2<br>190 Dwelling Units  |                             | 939   | 938  | 1877  |                                                 | 35    | 106  | 141   |                                                 | 118   | 70   | 188   |
| 210                              | SFHOUSE 1<br>1226 Dwelling Units |                             | 5787  | 5786 | 11573 |                                                 | 227   | 680  | 907   |                                                 | 765   | 449  | 1214  |
| 221                              | MID-RISE 1<br>924 Dwelling Units |                             | 2517  | 2517 | 5034  |                                                 | 87    | 246  | 333   |                                                 | 248   | 159  | 407   |
| 411                              | PUBLICPARK 1<br>20 Acres         |                             | 51    | 50   | 101   |                                                 | 0     | 0    | 0     |                                                 | 13    | 11   | 24    |
| Unadjusted Volume                |                                  |                             | 9294  | 9291 | 18585 |                                                 | 349   | 1032 | 1381  |                                                 | 1144  | 689  | 1833  |
| Internal Capture Trips           |                                  |                             | 0     | 0    | 0     |                                                 | 0     | 0    | 0     |                                                 | 0     | 0    | 0     |
| Pass-By Trips                    |                                  |                             | 0     | 0    | 0     |                                                 | 0     | 0    | 0     |                                                 | 0     | 0    | 0     |
| Volume Added to Adjacent Streets |                                  |                             | 9294  | 9291 | 18585 |                                                 | 349   | 1032 | 1381  |                                                 | 1144  | 689  | 1833  |

Total Weekday Average Daily Trips Internal Capture = 0 Percent

Total Weekday AM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

Total Weekday PM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

\* - Custom rate used for selected time period.

Source: Institute of Transportation Engineers, Trip Generation Manual 10th Edition

**TRIP GENERATION 10, TRAFFICWARE, LLC**

# APPENDIX I

## CAPACITY ANALYSIS REPORTS, EXISTING CONDITIONS



| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0.4                                                                               |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 479                                                                               | 10   | 1      | 845                                                                               | 14                                                                                | 3     |
| Future Vol, veh/h        | 479                                                                               | 10   | 1      | 845                                                                               | 14                                                                                | 3     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 7                                                                                 | 11   | 0      | 2                                                                                 | 0                                                                                 | 33    |
| Mvmt Flow                | 521                                                                               | 11   | 1      | 918                                                                               | 15                                                                                | 3     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 532    | 0                                                                                 | 1447                                                                              | 527   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 527                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 920                                                                               | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.1    | -                                                                                 | 6.4                                                                               | 6.53  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.4                                                                               | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.4                                                                               | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.2    | -                                                                                 | 3.5                                                                               | 3.597 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1046   | -                                                                                 | 146                                                                               | 495   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 596                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 392                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1046   | -                                                                                 | 146                                                                               | 495   |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 146                                                                               | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 596                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 391                                                                               | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 29.2                                                                              |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | D                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 167                                                                               | -    | -      | 1046                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.111                                                                             | -    | -      | 0.001                                                                             | -                                                                                 |       |
| HCM Control Delay (s)    | 29.2                                                                              | -    | -      | 8.4                                                                               | 0                                                                                 |       |
| HCM Lane LOS             | D                                                                                 | -    | -      | A                                                                                 | A                                                                                 |       |
| HCM 95th %tile Q(veh)    | 0.4                                                                               | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 15.5                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 432                                                                               | 73                                                                                | 43                                                                                | 816                                                                               | 85                                                                                | 57                                                                                |
| Future Vol, veh/h        | 432                                                                               | 73                                                                                | 43                                                                                | 816                                                                               | 85                                                                                | 57                                                                                |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | -                                                                                 | 200                                                                               | 150                                                                               | -                                                                                 | 0                                                                                 | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 83                                                                                | 83                                                                                | 83                                                                                | 83                                                                                | 83                                                                                | 83                                                                                |
| Heavy Vehicles, %        | 4                                                                                 | 3                                                                                 | 3                                                                                 | 2                                                                                 | 9                                                                                 | 10                                                                                |
| Mvmt Flow                | 520                                                                               | 88                                                                                | 52                                                                                | 983                                                                               | 102                                                                               | 69                                                                                |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor              | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   | Minor1                                                                            |                                                                                   |
| Conflicting Flow All     | 0                                                                                 | 0                                                                                 | 608                                                                               | 0                                                                                 | 1607                                                                              | 520                                                                               |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 520                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 1087                                                                              | -                                                                                 |
| Critical Hdwy            | -                                                                                 | -                                                                                 | 4.13                                                                              | -                                                                                 | 6.49                                                                              | 6.3                                                                               |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 5.49                                                                              | -                                                                                 |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 5.49                                                                              | -                                                                                 |
| Follow-up Hdwy           | -                                                                                 | -                                                                                 | 2.227                                                                             | -                                                                                 | 3.581                                                                             | 3.39                                                                              |
| Pot Cap-1 Maneuver       | -                                                                                 | -                                                                                 | 966                                                                               | -                                                                                 | 111                                                                               | 541                                                                               |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 583                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 313                                                                               | -                                                                                 |
| Platoon blocked, %       | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 |                                                                                   |                                                                                   |
| Mov Cap-1 Maneuver       | -                                                                                 | -                                                                                 | 966                                                                               | -                                                                                 | 105                                                                               | 541                                                                               |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 105                                                                               | -                                                                                 |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 583                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 296                                                                               | -                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                 | EB                                                                                |                                                                                   | WB                                                                                |                                                                                   | NB                                                                                |                                                                                   |
| HCM Control Delay, s     | 0                                                                                 |                                                                                   | 0.4                                                                               |                                                                                   | 161.5                                                                             |                                                                                   |
| HCM LOS                  | F                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               |                                                                                   |
| Capacity (veh/h)         | 155                                                                               | -                                                                                 | -                                                                                 | 966                                                                               | -                                                                                 |                                                                                   |
| HCM Lane V/C Ratio       | 1.104                                                                             | -                                                                                 | -                                                                                 | 0.054                                                                             | -                                                                                 |                                                                                   |
| HCM Control Delay (s)    | 161.5                                                                             | -                                                                                 | -                                                                                 | 8.9                                                                               | -                                                                                 |                                                                                   |
| HCM Lane LOS             | F                                                                                 | -                                                                                 | -                                                                                 | A                                                                                 | -                                                                                 |                                                                                   |
| HCM 95th %tile Q(veh)    | 9.1                                                                               | -                                                                                 | -                                                                                 | 0.2                                                                               | -                                                                                 |                                                                                   |

HCM 6th TWSC  
3: Shell Gas Station/Oconee Circle & Old Cornelia Highway

2021 - Existing Conditions  
AM Peak Hour

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|------|--------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 3.1                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL    | NBT                                                                               | NBR  | SBL    | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |  |  |  |      |        |  |      |        |  |      |
| Traffic Vol, veh/h       | 31                                                                                | 463                                                                               | 3                                                                                 | 21                                                                                | 876                                                                               | 4    | 3      | 0                                                                                 | 30   | 12     | 1                                                                                   | 102  |
| Future Vol, veh/h        | 31                                                                                | 463                                                                               | 3                                                                                 | 21                                                                                | 876                                                                               | 4    | 3      | 0                                                                                 | 30   | 12     | 1                                                                                   | 102  |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0      | 0                                                                                 | 0    | 0      | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop   | Stop                                                                              | Stop | Stop   | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -      | -                                                                                 | None | -      | -                                                                                   | None |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -      | -                                                                                 | -    | -      | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -    | -      | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -    | -      | 0                                                                                   | -    |
| Peak Hour Factor         | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90   | 90     | 90                                                                                | 90   | 90     | 90                                                                                  | 90   |
| Heavy Vehicles, %        | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0    | 0      | 0                                                                                 | 0    | 0      | 0                                                                                   | 0    |
| Mvmt Flow                | 34                                                                                | 514                                                                               | 3                                                                                 | 23                                                                                | 973                                                                               | 4    | 3      | 0                                                                                 | 33   | 13     | 1                                                                                   | 113  |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
| Major/Minor              | Major1                                                                            |                                                                                   |                                                                                   | Major2                                                                            |                                                                                   |      | Minor1 |                                                                                   |      | Minor2 |                                                                                     |      |
| Conflicting Flow All     | 977                                                                               | 0                                                                                 | 0                                                                                 | 517                                                                               | 0                                                                                 | 0    | 1660   | 1605                                                                              | 257  | 1346   | 1606                                                                                | 975  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 582    | 582                                                                               | -    | 1021   | 1021                                                                                | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 1078   | 1023                                                                              | -    | 325    | 585                                                                                 | -    |
| Critical Hdwy            | 4.1                                                                               | -                                                                                 | -                                                                                 | 4.175                                                                             | -                                                                                 | -    | 7.3    | 6.5                                                                               | 6.9  | 7.3    | 6.5                                                                                 | 6.2  |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.5    | 5.5                                                                               | -    | 6.1    | 5.5                                                                                 | -    |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.1    | 5.5                                                                               | -    | 6.5    | 5.5                                                                                 | -    |
| Follow-up Hdwy           | 2.2                                                                               | -                                                                                 | -                                                                                 | 2.2475                                                                            | -                                                                                 | -    | 3.5    | 4                                                                                 | 3.3  | 3.5    | 4                                                                                   | 3.3  |
| Pot Cap-1 Maneuver       | 714                                                                               | -                                                                                 | -                                                                                 | 1029                                                                              | -                                                                                 | -    | 72     | 106                                                                               | 748  | 120    | 106                                                                                 | 308  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 471    | 502                                                                               | -    | 288    | 316                                                                                 | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 267    | 316                                                                               | -    | 667    | 501                                                                                 | -    |
| Platoon blocked, %       |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 | -    |        |                                                                                   |      |        |                                                                                     |      |
| Mov Cap-1 Maneuver       | 714                                                                               | -                                                                                 | -                                                                                 | 1029                                                                              | -                                                                                 | -    | 43     | 99                                                                                | 748  | 109    | 99                                                                                  | 308  |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 43     | 99                                                                                | -    | 109    | 99                                                                                  | -    |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 448    | 478                                                                               | -    | 274    | 309                                                                                 | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 164    | 309                                                                               | -    | 607    | 477                                                                                 | -    |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
| Approach                 | EB                                                                                |                                                                                   |                                                                                   | WB                                                                                |                                                                                   |      | NB     |                                                                                   |      | SB     |                                                                                     |      |
| HCM Control Delay, s     | 0.6                                                                               |                                                                                   |                                                                                   | 0.2                                                                               |                                                                                   |      | 18.7   |                                                                                   |      | 32.5   |                                                                                     |      |
| HCM LOS                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      | C      |                                                                                   |      | D      |                                                                                     |      |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT  | WBR    | SBLn1                                                                             |      |        |                                                                                     |      |
| Capacity (veh/h)         | 300                                                                               | 714                                                                               | -                                                                                 | -                                                                                 | 1029                                                                              | -    | -      | 255                                                                               |      |        |                                                                                     |      |
| HCM Lane V/C Ratio       | 0.122                                                                             | 0.048                                                                             | -                                                                                 | -                                                                                 | 0.023                                                                             | -    | -      | 0.501                                                                             |      |        |                                                                                     |      |
| HCM Control Delay (s)    | 18.7                                                                              | 10.3                                                                              | -                                                                                 | -                                                                                 | 8.6                                                                               | -    | -      | 32.5                                                                              |      |        |                                                                                     |      |
| HCM Lane LOS             | C                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 | A                                                                                 | -    | -      | D                                                                                 |      |        |                                                                                     |      |
| HCM 95th %tile Q(veh)    | 0.4                                                                               | 0.2                                                                               | -                                                                                 | -                                                                                 | 0.1                                                                               | -    | -      | 2.6                                                                               |      |        |                                                                                     |      |



| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0.2                                                                               |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 962                                                                               | 14   | 0      | 432                                                                               | 8                                                                                 | 0     |
| Future Vol, veh/h        | 962                                                                               | 14   | 0      | 432                                                                               | 8                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 90                                                                                | 90   | 90     | 90                                                                                | 90                                                                                | 90    |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2      | 1                                                                                 | 14                                                                                | 2     |
| Mvmt Flow                | 1069                                                                              | 16   | 0      | 480                                                                               | 9                                                                                 | 0     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 1085   | 0                                                                                 | 1557                                                                              | 1077  |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1077                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 480                                                                               | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.54                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.54                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.54                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.626                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 643    | -                                                                                 | 116                                                                               | 266   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 310                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 598                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 643    | -                                                                                 | 116                                                                               | 266   |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 116                                                                               | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 310                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 598                                                                               | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 38.6                                                                              |       |
| HCM LOS                  | E                                                                                 |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 116                                                                               | -    | -      | 643                                                                               | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.077                                                                             | -    | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 38.6                                                                              | -    | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | E                                                                                 | -    | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | 0.2                                                                               | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 1.1                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 965                                                                               | 24                                                                                | 3                                                                                 | 437                                                                               | 29                                                                                | 11                                                                                |
| Future Vol, veh/h        | 965                                                                               | 24                                                                                | 3                                                                                 | 437                                                                               | 29                                                                                | 11                                                                                |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | -                                                                                 | 200                                                                               | 150                                                                               | -                                                                                 | 0                                                                                 | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                |
| Heavy Vehicles, %        | 9                                                                                 | 0                                                                                 | 0                                                                                 | 2                                                                                 | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                | 1049                                                                              | 26                                                                                | 3                                                                                 | 475                                                                               | 32                                                                                | 12                                                                                |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor              | Major1                                                                            | Major2                                                                            |                                                                                   | Minor1                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All     | 0                                                                                 | 0                                                                                 | 1075                                                                              | 0                                                                                 | 1530                                                                              | 1049                                                                              |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 1049                                                                              | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 481                                                                               | -                                                                                 |
| Critical Hdwy            | -                                                                                 | -                                                                                 | 4.1                                                                               | -                                                                                 | 6.4                                                                               | 6.2                                                                               |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 5.4                                                                               | -                                                                                 |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 5.4                                                                               | -                                                                                 |
| Follow-up Hdwy           | -                                                                                 | -                                                                                 | 2.2                                                                               | -                                                                                 | 3.5                                                                               | 3.3                                                                               |
| Pot Cap-1 Maneuver       | -                                                                                 | -                                                                                 | 656                                                                               | -                                                                                 | 130                                                                               | 279                                                                               |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 340                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 626                                                                               | -                                                                                 |
| Platoon blocked, %       | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 |                                                                                   |                                                                                   |
| Mov Cap-1 Maneuver       | -                                                                                 | -                                                                                 | 656                                                                               | -                                                                                 | 129                                                                               | 279                                                                               |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 129                                                                               | -                                                                                 |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 340                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 623                                                                               | -                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                 | EB                                                                                | WB                                                                                |                                                                                   | NB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 0                                                                                 | 0.1                                                                               |                                                                                   | 38.2                                                                              |                                                                                   |                                                                                   |
| HCM LOS                  | E                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               |                                                                                   |
| Capacity (veh/h)         | 151                                                                               | -                                                                                 | -                                                                                 | 656                                                                               | -                                                                                 |                                                                                   |
| HCM Lane V/C Ratio       | 0.288                                                                             | -                                                                                 | -                                                                                 | 0.005                                                                             | -                                                                                 |                                                                                   |
| HCM Control Delay (s)    | 38.2                                                                              | -                                                                                 | -                                                                                 | 10.5                                                                              | -                                                                                 |                                                                                   |
| HCM Lane LOS             | E                                                                                 | -                                                                                 | -                                                                                 | B                                                                                 | -                                                                                 |                                                                                   |
| HCM 95th %tile Q(veh)    | 1.1                                                                               | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 |                                                                                   |

HCM 6th TWSC  
3: Shell Gas Station/Oconee Circle & Old Cornelia Highway

2021 - Existing Conditions  
PM Peak Hour

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 7.8                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |      |  |      |      |  |  |
| Traffic Vol, veh/h       | 84                                                                                | 897                                                                               | 36                                                                                | 19                                                                                | 446                                                                               | 1                                                                                 | 21   | 6                                                                                 | 90   | 2    | 2                                                                                 | 57                                                                                |
| Future Vol, veh/h        | 84                                                                                | 897                                                                               | 36                                                                                | 19                                                                                | 446                                                                               | 1                                                                                 | 21   | 6                                                                                 | 90   | 2    | 2                                                                                 | 57                                                                                |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop | Stop                                                                              | Stop | Stop | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None                                                                              | -    | -                                                                                 | None | -    | -                                                                                 | None                                                                              |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 | -                                                                                 |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87   | 87                                                                                | 87   | 87   | 87                                                                                | 87                                                                                |
| Heavy Vehicles, %        | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                | 97                                                                                | 1031                                                                              | 41                                                                                | 22                                                                                | 513                                                                               | 1                                                                                 | 24   | 7                                                                                 | 103  | 2    | 2                                                                                 | 66                                                                                |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |     |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|-----|
| Conflicting Flow All | 514    | 0 | 0 | 1072   | 0 | 0 | 1817   | 1783 | 516 | 1271   | 1824 | 514 |
| Stage 1              | -      | - | - | -      | - | - | 1225   | 1225 | -   | 558    | 558  | -   |
| Stage 2              | -      | - | - | -      | - | - | 592    | 558  | -   | 713    | 1266 | -   |
| Critical Hdwy        | 4.115  | - | - | 4.1    | - | - | 7.3    | 6.5  | 6.9 | 7.3    | 6.5  | 6.2 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.1    | 5.5  | -   |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.1    | 5.5  | -   | 6.5    | 5.5  | -   |
| Follow-up Hdwy       | 2.2095 | - | - | 2.2    | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3 |
| Pot Cap-1 Maneuver   | 1056   | - | - | 658    | - | - | 55     | 83   | 509 | 136    | 78   | 564 |
| Stage 1              | -      | - | - | -      | - | - | 193    | 254  | -   | 518    | 515  | -   |
| Stage 2              | -      | - | - | -      | - | - | 496    | 515  | -   | 394    | 242  | -   |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -   | -      | -    | -   |
| Mov Cap-1 Maneuver   | 1056   | - | - | 658    | - | - | 43     | 73   | 509 | 91     | 68   | 564 |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 43     | 73   | -   | 91     | 68   | -   |
| Stage 1              | -      | - | - | -      | - | - | 175    | 231  | -   | 470    | 498  | -   |
| Stage 2              | -      | - | - | -      | - | - | 422    | 498  | -   | 277    | 220  | -   |

| Approach             | EB  | WB  | NB   | SB   |
|----------------------|-----|-----|------|------|
| HCM Control Delay, s | 0.7 | 0.4 | 95.1 | 15.9 |
| HCM LOS              |     |     | F    | C    |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 157   | 1056  | -   | -   | 658   | -   | -   | 400   |
| HCM Lane V/C Ratio    | 0.857 | 0.091 | -   | -   | 0.033 | -   | -   | 0.175 |
| HCM Control Delay (s) | 95.1  | 8.8   | -   | -   | 10.7  | -   | -   | 15.9  |
| HCM Lane LOS          | F     | A     | -   | -   | B     | -   | -   | C     |
| HCM 95th %tile Q(veh) | 5.8   | 0.3   | -   | -   | 0.1   | -   | -   | 0.6   |

## APPENDIX J

### CAPACITY ANALYSIS REPORTS - NO-BUILD CONDITIONS



| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0.4                                                                               |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 508                                                                               | 11   | 1      | 896                                                                               | 15                                                                                | 3     |
| Future Vol, veh/h        | 508                                                                               | 11   | 1      | 896                                                                               | 15                                                                                | 3     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 7                                                                                 | 11   | 0      | 2                                                                                 | 0                                                                                 | 33    |
| Mvmt Flow                | 552                                                                               | 12   | 1      | 974                                                                               | 16                                                                                | 3     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 564    | 0                                                                                 | 1534                                                                              | 558   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 558                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 976                                                                               | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.1    | -                                                                                 | 6.4                                                                               | 6.53  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.4                                                                               | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.4                                                                               | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.2    | -                                                                                 | 3.5                                                                               | 3.597 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1018   | -                                                                                 | 129                                                                               | 475   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 577                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 368                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1018   | -                                                                                 | 129                                                                               | 475   |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 129                                                                               | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 577                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 367                                                                               | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 33.2                                                                              |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | D                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 147                                                                               | -    | -      | 1018                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.133                                                                             | -    | -      | 0.001                                                                             | -                                                                                 |       |
| HCM Control Delay (s)    | 33.2                                                                              | -    | -      | 8.5                                                                               | 0                                                                                 |       |
| HCM Lane LOS             | D                                                                                 | -    | -      | A                                                                                 | A                                                                                 |       |
| HCM 95th %tile Q(veh)    | 0.4                                                                               | -    | -      | 0                                                                                 | -                                                                                 |       |



| Intersection               |        |                        |        |                            |        |                                |
|----------------------------|--------|------------------------|--------|----------------------------|--------|--------------------------------|
| Int Delay, s/veh           | 23.9   |                        |        |                            |        |                                |
| Movement                   | EBT    | EBR                    | WBL    | WBT                        | NBL    | NBR                            |
| Lane Configurations        | ↑      | ↗                      | ↖      | ↑                          | ↘      |                                |
| Traffic Vol, veh/h         | 458    | 77                     | 46     | 865                        | 90     | 60                             |
| Future Vol, veh/h          | 458    | 77                     | 46     | 865                        | 90     | 60                             |
| Conflicting Peds, #/hr     | 0      | 0                      | 0      | 0                          | 0      | 0                              |
| Sign Control               | Free   | Free                   | Free   | Free                       | Stop   | Stop                           |
| RT Channelized             | -      | None                   | -      | None                       | -      | None                           |
| Storage Length             | -      | 200                    | 150    | -                          | 0      | -                              |
| Veh in Median Storage, #   | 0      | -                      | -      | 0                          | 0      | -                              |
| Grade, %                   | 0      | -                      | -      | 0                          | 0      | -                              |
| Peak Hour Factor           | 83     | 83                     | 83     | 83                         | 83     | 83                             |
| Heavy Vehicles, %          | 4      | 3                      | 3      | 2                          | 9      | 10                             |
| Mvmt Flow                  | 552    | 93                     | 55     | 1042                       | 108    | 72                             |
|                            |        |                        |        |                            |        |                                |
| Major/Minor                | Major1 |                        | Major2 |                            | Minor1 |                                |
| Conflicting Flow All       | 0      | 0                      | 645    | 0                          | 1704   | 552                            |
| Stage 1                    | -      | -                      | -      | -                          | 552    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 1152   | -                              |
| Critical Hdwy              | -      | -                      | 4.13   | -                          | 6.49   | 6.3                            |
| Critical Hdwy Stg 1        | -      | -                      | -      | -                          | 5.49   | -                              |
| Critical Hdwy Stg 2        | -      | -                      | -      | -                          | 5.49   | -                              |
| Follow-up Hdwy             | -      | -                      | 2.227  | -                          | 3.581  | 3.39                           |
| Pot Cap-1 Maneuver         | -      | -                      | 935    | -                          | ~ 97   | 518                            |
| Stage 1                    | -      | -                      | -      | -                          | 563    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 292    | -                              |
| Platoon blocked, %         | -      | -                      | -      | -                          | -      | -                              |
| Mov Cap-1 Maneuver         | -      | -                      | 935    | -                          | ~ 91   | 518                            |
| Mov Cap-2 Maneuver         | -      | -                      | -      | -                          | ~ 91   | -                              |
| Stage 1                    | -      | -                      | -      | -                          | 563    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 275    | -                              |
|                            |        |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Approach                   | EB     |                        | WB     |                            | NB     |                                |
| HCM Control Delay, s       | 0      |                        | 0.5    |                            | 251.4  |                                |
| HCM LOS                    | F      |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Minor Lane/Major Mvmt      | NBLn1  | EBT                    | EBR    | WBL                        | WBT    |                                |
| Capacity (veh/h)           | 136    | -                      | -      | 935                        | -      |                                |
| HCM Lane V/C Ratio         | 1.329  | -                      | -      | 0.059                      | -      |                                |
| HCM Control Delay (s)      | 251.4  | -                      | -      | 9.1                        | -      |                                |
| HCM Lane LOS               | F      | -                      | -      | A                          | -      |                                |
| HCM 95th %tile Q(veh)      | 11.5   | -                      | -      | 0.2                        | -      |                                |
| Notes                      |        |                        |        |                            |        |                                |
| ~: Volume exceeds capacity |        | \$: Delay exceeds 300s |        | +: Computation Not Defined |        | *: All major volume in platoon |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 3.8                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |  |  |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 33                                                                                | 491                                                                               | 3                                                                                 | 22                                                                                | 929                                                                               | 4    | 3    | 0                                                                                 | 32   | 13   | 1                                                                                   | 108  |
| Future Vol, veh/h        | 33                                                                                | 491                                                                               | 3                                                                                 | 22                                                                                | 929                                                                               | 4    | 3    | 0                                                                                 | 32   | 13   | 1                                                                                   | 108  |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90   | 90   | 90                                                                                | 90   | 90   | 90                                                                                  | 90   |
| Heavy Vehicles, %        | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Mvmt Flow                | 37                                                                                | 546                                                                               | 3                                                                                 | 24                                                                                | 1032                                                                              | 4    | 3    | 0                                                                                 | 36   | 14   | 1                                                                                   | 120  |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |      |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|------|
| Conflicting Flow All | 1036   | 0 | 0 | 549    | 0 | 0 | 1763   | 1704 | 273 | 1429   | 1705 | 1034 |
| Stage 1              | -      | - | - | -      | - | - | 620    | 620  | -   | 1082   | 1082 | -    |
| Stage 2              | -      | - | - | -      | - | - | 1143   | 1084 | -   | 347    | 623  | -    |
| Critical Hdwy        | 4.1    | - | - | 4.175  | - | - | 7.3    | 6.5  | 6.9 | 7.3    | 6.5  | 6.2  |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.1    | 5.5  | -    |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.1    | 5.5  | -   | 6.5    | 5.5  | -    |
| Follow-up Hdwy       | 2.2    | - | - | 2.2475 | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3  |
| Pot Cap-1 Maneuver   | 679    | - | - | 1001   | - | - | 60     | 93   | 731 | 105    | 92   | 285  |
| Stage 1              | -      | - | - | -      | - | - | 447    | 483  | -   | 266    | 296  | -    |
| Stage 2              | -      | - | - | -      | - | - | 246    | 296  | -   | 648    | 481  | -    |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -   | -      | -    | -    |
| Mov Cap-1 Maneuver   | 679    | - | - | 1001   | - | - | 32     | 86   | 731 | 94     | 85   | 285  |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 32     | 86   | -   | 94     | 85   | -    |
| Stage 1              | -      | - | - | -      | - | - | 423    | 457  | -   | 252    | 289  | -    |
| Stage 2              | -      | - | - | -      | - | - | 138    | 289  | -   | 583    | 455  | -    |

| Approach             | EB  |  |  | WB  |  |  | NB   |  |  | SB   |  |  |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.7 |  |  | 0.2 |  |  | 21.7 |  |  | 40.6 |  |  |
| HCM LOS              |     |  |  |     |  |  | C    |  |  | E    |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 254   | 679   | -   | -   | 1001  | -   | -   | 231   |
| HCM Lane V/C Ratio    | 0.153 | 0.054 | -   | -   | 0.024 | -   | -   | 0.587 |
| HCM Control Delay (s) | 21.7  | 10.6  | -   | -   | 8.7   | -   | -   | 40.6  |
| HCM Lane LOS          | C     | B     | -   | -   | A     | -   | -   | E     |
| HCM 95th %tile Q(veh) | 0.5   | 0.2   | -   | -   | 0.1   | -   | -   | 3.3   |

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0.2                                                                               |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 1020                                                                              | 15   | 0      | 458                                                                               | 8                                                                                 | 0     |
| Future Vol, veh/h        | 1020                                                                              | 15   | 0      | 458                                                                               | 8                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 90                                                                                | 90   | 90     | 90                                                                                | 90                                                                                | 90    |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2      | 1                                                                                 | 14                                                                                | 2     |
| Mvmt Flow                | 1133                                                                              | 17   | 0      | 509                                                                               | 9                                                                                 | 0     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 1150   | 0                                                                                 | 1651                                                                              | 1142  |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1142                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 509                                                                               | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.54                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.54                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.54                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.626                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 608    | -                                                                                 | 101                                                                               | 244   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 288                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 580                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 608    | -                                                                                 | 101                                                                               | 244   |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 101                                                                               | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 288                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 580                                                                               | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 44.1                                                                              |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | E                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 101                                                                               | -    | -      | 608                                                                               | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.088                                                                             | -    | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 44.1                                                                              | -    | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | E                                                                                 | -    | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | 0.3                                                                               | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 1.3    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑      | ↗    | ↘      | ↑     | ↘↗     |      |
| Traffic Vol, veh/h       | 1023   | 25   | 3      | 463   | 31     | 12   |
| Future Vol, veh/h        | 1023   | 25   | 3      | 463   | 31     | 12   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1112   | 27   | 3      | 503   | 34     | 13   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1139   | 0     | 1621   | 1112 |
| Stage 1                  | -      | -    | -      | -     | 1112   | -    |
| Stage 2                  | -      | -    | -      | -     | 509    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.4    | 6.2  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.4    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.4    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 621    | -     | 115    | 256  |
| Stage 1                  | -      | -    | -      | -     | 317    | -    |
| Stage 2                  | -      | -    | -      | -     | 608    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 621    | -     | 114    | 256  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 114    | -    |
| Stage 1                  | -      | -    | -      | -     | 317    | -    |
| Stage 2                  | -      | -    | -      | -     | 605    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.1    |       | 45.2   |      |
| HCM LOS                  | E      |      |        |       |        |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 135    | -    | -      | 621   | -      |      |
| HCM Lane V/C Ratio       | 0.346  | -    | -      | 0.005 | -      |      |
| HCM Control Delay (s)    | 45.2   | -    | -      | 10.8  | -      |      |
| HCM Lane LOS             | E      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 1.4    | -    | -      | 0     | -      |      |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 12.2                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |      |  |      |      |  |  |
| Traffic Vol, veh/h       | 89                                                                                | 951                                                                               | 38                                                                                | 20                                                                                | 473                                                                               | 1                                                                                 | 22   | 6                                                                                 | 95   | 2    | 2                                                                                 | 60                                                                                |
| Future Vol, veh/h        | 89                                                                                | 951                                                                               | 38                                                                                | 20                                                                                | 473                                                                               | 1                                                                                 | 22   | 6                                                                                 | 95   | 2    | 2                                                                                 | 60                                                                                |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop | Stop                                                                              | Stop | Stop | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None                                                                              | -    | -                                                                                 | None | -    | -                                                                                 | None                                                                              |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 | -                                                                                 |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87   | 87                                                                                | 87   | 87   | 87                                                                                | 87                                                                                |
| Heavy Vehicles, %        | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                | 102                                                                               | 1093                                                                              | 44                                                                                | 23                                                                                | 544                                                                               | 1                                                                                 | 25   | 7                                                                                 | 109  | 2    | 2                                                                                 | 69                                                                                |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |     |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|-----|
| Conflicting Flow All | 545    | 0 | 0 | 1137   | 0 | 0 | 1923   | 1888 | 547 | 1345   | 1932 | 545 |
| Stage 1              | -      | - | - | -      | - | - | 1297   | 1297 | -   | 591    | 591  | -   |
| Stage 2              | -      | - | - | -      | - | - | 626    | 591  | -   | 754    | 1341 | -   |
| Critical Hdwy        | 4.115  | - | - | 4.1    | - | - | 7.3    | 6.5  | 6.9 | 7.3    | 6.5  | 6.2 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.1    | 5.5  | -   |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.1    | 5.5  | -   | 6.5    | 5.5  | -   |
| Follow-up Hdwy       | 2.2095 | - | - | 2.2    | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3 |
| Pot Cap-1 Maneuver   | 1028   | - | - | 622    | - | - | 46     | 71   | 486 | 121    | 67   | 542 |
| Stage 1              | -      | - | - | -      | - | - | 174    | 234  | -   | 497    | 498  | -   |
| Stage 2              | -      | - | - | -      | - | - | 475    | 498  | -   | 372    | 223  | -   |
| Platoon blocked, %   |        | - | - |        | - | - |        |      |     |        |      |     |
| Mov Cap-1 Maneuver   | 1028   | - | - | 622    | - | - | 35     | 62   | 486 | 77     | 58   | 542 |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 35     | 62   | -   | 77     | 58   | -   |
| Stage 1              | -      | - | - | -      | - | - | 157    | 211  | -   | 448    | 480  | -   |
| Stage 2              | -      | - | - | -      | - | - | 397    | 480  | -   | 251    | 201  | -   |

| Approach             | EB  |  |  | WB  |  |  | NB    |  |  | SB |  |  |
|----------------------|-----|--|--|-----|--|--|-------|--|--|----|--|--|
| HCM Control Delay, s | 0.7 |  |  | 0.4 |  |  | 157.9 |  |  | 17 |  |  |
| HCM LOS              |     |  |  |     |  |  | F     |  |  | C  |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBL  | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 134   | 1028 | -   | -   | 622   | -   | -   | 374   |
| HCM Lane V/C Ratio    | 1.055 | 0.1  | -   | -   | 0.037 | -   | -   | 0.197 |
| HCM Control Delay (s) | 157.9 | 8.9  | -   | -   | 11    | -   | -   | 17    |
| HCM Lane LOS          | F     | A    | -   | -   | B     | -   | -   | C     |
| HCM 95th %tile Q(veh) | 7.8   | 0.3  | -   | -   | 0.1   | -   | -   | 0.7   |



| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.5                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 546                                                                               | 11   | 1    | 963                                                                               | 16                                                                                | 3    |
| Future Vol, veh/h        | 546                                                                               | 11   | 1    | 963                                                                               | 16                                                                                | 3    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 7                                                                                 | 11   | 0    | 2                                                                                 | 0                                                                                 | 33   |
| Mvmt Flow                | 593                                                                               | 12   | 1    | 1047                                                                              | 17                                                                                | 3    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |       |
|----------------------|--------|--------|--------|---|------|-------|
| Conflicting Flow All | 0      | 0      | 605    | 0 | 1648 | 599   |
| Stage 1              | -      | -      | -      | - | 599  | -     |
| Stage 2              | -      | -      | -      | - | 1049 | -     |
| Critical Hdwy        | -      | -      | 4.1    | - | 6.4  | 6.53  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.4  | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.4  | -     |
| Follow-up Hdwy       | -      | -      | 2.2    | - | 3.5  | 3.597 |
| Pot Cap-1 Maneuver   | -      | -      | 983    | - | 110  | 449   |
| Stage 1              | -      | -      | -      | - | 553  | -     |
| Stage 2              | -      | -      | -      | - | 340  | -     |
| Platoon blocked, %   | -      | -      | -      | - | -    | -     |
| Mov Cap-1 Maneuver   | -      | -      | 983    | - | 110  | 449   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 110  | -     |
| Stage 1              | -      | -      | -      | - | 553  | -     |
| Stage 2              | -      | -      | -      | - | 339  | -     |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 39.4 |
| HCM LOS              |    |    | E    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 125   | -   | -   | 983   | -   |
| HCM Lane V/C Ratio    | 0.165 | -   | -   | 0.001 | -   |
| HCM Control Delay (s) | 39.4  | -   | -   | 8.7   | 0   |
| HCM Lane LOS          | E     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.6   | -   | -   | 0     | -   |

| Intersection               |          |                        |        |                            |          |                                |
|----------------------------|----------|------------------------|--------|----------------------------|----------|--------------------------------|
| Int Delay, s/veh           | 40       |                        |        |                            |          |                                |
| Movement                   | EBT      | EBR                    | WBL    | WBT                        | NBL      | NBR                            |
| Lane Configurations        | ↑        | ↗                      | ↖      | ↑                          | ↘        |                                |
| Traffic Vol, veh/h         | 492      | 83                     | 49     | 930                        | 97       | 65                             |
| Future Vol, veh/h          | 492      | 83                     | 49     | 930                        | 97       | 65                             |
| Conflicting Peds, #/hr     | 0        | 0                      | 0      | 0                          | 0        | 0                              |
| Sign Control               | Free     | Free                   | Free   | Free                       | Stop     | Stop                           |
| RT Channelized             | -        | None                   | -      | None                       | -        | None                           |
| Storage Length             | -        | 200                    | 150    | -                          | 0        | -                              |
| Veh in Median Storage, #   | 0        | -                      | -      | 0                          | 0        | -                              |
| Grade, %                   | 0        | -                      | -      | 0                          | 0        | -                              |
| Peak Hour Factor           | 83       | 83                     | 83     | 83                         | 83       | 83                             |
| Heavy Vehicles, %          | 4        | 3                      | 3      | 2                          | 9        | 10                             |
| Mvmt Flow                  | 593      | 100                    | 59     | 1120                       | 117      | 78                             |
|                            |          |                        |        |                            |          |                                |
| Major/Minor                | Major1   |                        | Major2 |                            | Minor1   |                                |
| Conflicting Flow All       | 0        | 0                      | 693    | 0                          | 1831     | 593                            |
| Stage 1                    | -        | -                      | -      | -                          | 593      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 1238     | -                              |
| Critical Hdwy              | -        | -                      | 4.13   | -                          | 6.49     | 6.3                            |
| Critical Hdwy Stg 1        | -        | -                      | -      | -                          | 5.49     | -                              |
| Critical Hdwy Stg 2        | -        | -                      | -      | -                          | 5.49     | -                              |
| Follow-up Hdwy             | -        | -                      | 2.227  | -                          | 3.581    | 3.39                           |
| Pot Cap-1 Maneuver         | -        | -                      | 898    | -                          | ~ 80     | 491                            |
| Stage 1                    | -        | -                      | -      | -                          | 539      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 265      | -                              |
| Platoon blocked, %         | -        | -                      |        | -                          |          |                                |
| Mov Cap-1 Maneuver         | -        | -                      | 898    | -                          | ~ 75     | 491                            |
| Mov Cap-2 Maneuver         | -        | -                      | -      | -                          | ~ 75     | -                              |
| Stage 1                    | -        | -                      | -      | -                          | 539      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 248      | -                              |
|                            |          |                        |        |                            |          |                                |
| Approach                   | EB       |                        | WB     |                            | NB       |                                |
| HCM Control Delay, s       | 0        |                        | 0.5    |                            | \$ 420.4 |                                |
| HCM LOS                    | F        |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Minor Lane/Major Mvmt      | NBLn1    | EBT                    | EBR    | WBL                        | WBT      |                                |
| Capacity (veh/h)           | 114      | -                      | -      | 898                        | -        |                                |
| HCM Lane V/C Ratio         | 1.712    | -                      | -      | 0.066                      | -        |                                |
| HCM Control Delay (s)      | \$ 420.4 | -                      | -      | 9.3                        | -        |                                |
| HCM Lane LOS               | F        | -                      | -      | A                          | -        |                                |
| HCM 95th %tile Q(veh)      | 15       | -                      | -      | 0.2                        | -        |                                |
| Notes                      |          |                        |        |                            |          |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |        | +: Computation Not Defined |          | *: All major volume in platoon |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |        |      |                                                                                     |                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|--------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh         | 5.2                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |        |      |                                                                                     |                                                                                     |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL  | NBT                                                                               | NBR    | SBL  | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations      |  |  |  |  |  |  |      |  |        |      |  |  |
| Traffic Vol, veh/h       | 35                                                                                | 528                                                                               | 3                                                                                 | 24                                                                                | 999                                                                               | 5                                                                                 | 3    | 0                                                                                 | 34     | 14   | 1                                                                                   | 116                                                                                 |
| Future Vol, veh/h        | 35                                                                                | 528                                                                               | 3                                                                                 | 24                                                                                | 999                                                                               | 5                                                                                 | 3    | 0                                                                                 | 34     | 14   | 1                                                                                   | 116                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0      | 0    | 0                                                                                   | 0                                                                                   |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop | Stop                                                                              | Stop   | Stop | Stop                                                                                | Stop                                                                                |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None                                                                              | -    | -                                                                                 | None   | -    | -                                                                                   | None                                                                                |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -                                                                                 | -    | -                                                                                 | -      | -    | -                                                                                   | -                                                                                   |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -      | -    | 0                                                                                   | -                                                                                   |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -      | -    | 0                                                                                   | -                                                                                   |
| Peak Hour Factor         | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90   | 90                                                                                | 90     | 90   | 90                                                                                  | 90                                                                                  |
| Heavy Vehicles, %        | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0      | 0    | 0                                                                                   | 0                                                                                   |
| Mvmt Flow                | 39                                                                                | 587                                                                               | 3                                                                                 | 27                                                                                | 1110                                                                              | 6                                                                                 | 3    | 0                                                                                 | 38     | 16   | 1                                                                                   | 129                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |        |      |                                                                                     |                                                                                     |
| Major/Minor              | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   | Minor1                                                                            |      |                                                                                   | Minor2 |      |                                                                                     |                                                                                     |
| Conflicting Flow All     | 1116                                                                              | 0                                                                                 | 0                                                                                 | 590                                                                               | 0                                                                                 | 0                                                                                 | 1897 | 1835                                                                              | 294    | 1539 | 1835                                                                                | 1113                                                                                |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 665  | 665                                                                               | -      | 1167 | 1167                                                                                | -                                                                                   |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 1232 | 1170                                                                              | -      | 372  | 668                                                                                 | -                                                                                   |
| Critical Hdwy            | 4.1                                                                               | -                                                                                 | -                                                                                 | 4.175                                                                             | -                                                                                 | -                                                                                 | 7.3  | 6.5                                                                               | 6.9    | 7.3  | 6.5                                                                                 | 6.2                                                                                 |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 6.5  | 5.5                                                                               | -      | 6.1  | 5.5                                                                                 | -                                                                                   |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 6.1  | 5.5                                                                               | -      | 6.5  | 5.5                                                                                 | -                                                                                   |
| Follow-up Hdwy           | 2.2                                                                               | -                                                                                 | -                                                                                 | 2.2475                                                                            | -                                                                                 | -                                                                                 | 3.5  | 4                                                                                 | 3.3    | 3.5  | 4                                                                                   | 3.3                                                                                 |
| Pot Cap-1 Maneuver       | 633                                                                               | -                                                                                 | -                                                                                 | 966                                                                               | -                                                                                 | -                                                                                 | 48   | 77                                                                                | 708    | 88   | 77                                                                                  | 256                                                                                 |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 420  | 461                                                                               | -      | 238  | 270                                                                                 | -                                                                                   |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 219  | 269                                                                               | -      | 626  | 459                                                                                 | -                                                                                   |
| Platoon blocked, %       |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 | -                                                                                 |      |                                                                                   |        |      |                                                                                     |                                                                                     |
| Mov Cap-1 Maneuver       | 633                                                                               | -                                                                                 | -                                                                                 | 966                                                                               | -                                                                                 | -                                                                                 | 22   | 70                                                                                | 708    | 78   | 70                                                                                  | 256                                                                                 |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 22   | 70                                                                                | -      | 78   | 70                                                                                  | -                                                                                   |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 394  | 432                                                                               | -      | 223  | 262                                                                                 | -                                                                                   |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 105  | 261                                                                               | -      | 556  | 431                                                                                 | -                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |        |      |                                                                                     |                                                                                     |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |        |      |                                                                                     |                                                                                     |
| Approach                 | EB                                                                                |                                                                                   | WB                                                                                |                                                                                   |                                                                                   | NB                                                                                |      |                                                                                   | SB     |      |                                                                                     |                                                                                     |
| HCM Control Delay, s     | 0.7                                                                               |                                                                                   | 0.2                                                                               |                                                                                   |                                                                                   | 27.5                                                                              |      |                                                                                   | 57.9   |      |                                                                                     |                                                                                     |
| HCM LOS                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | D                                                                                 |      |                                                                                   | F      |      |                                                                                     |                                                                                     |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |        |      |                                                                                     |                                                                                     |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | SBLn1                                                                             |        |      |                                                                                     |                                                                                     |
| Capacity (veh/h)         | 201                                                                               | 633                                                                               | -                                                                                 | -                                                                                 | 966                                                                               | -                                                                                 | -    | 203                                                                               |        |      |                                                                                     |                                                                                     |
| HCM Lane V/C Ratio       | 0.205                                                                             | 0.061                                                                             | -                                                                                 | -                                                                                 | 0.028                                                                             | -                                                                                 | -    | 0.717                                                                             |        |      |                                                                                     |                                                                                     |
| HCM Control Delay (s)    | 27.5                                                                              | 11.1                                                                              | -                                                                                 | -                                                                                 | 8.8                                                                               | -                                                                                 | -    | 57.9                                                                              |        |      |                                                                                     |                                                                                     |
| HCM Lane LOS             | D                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 | A                                                                                 | -                                                                                 | -    | F                                                                                 |        |      |                                                                                     |                                                                                     |
| HCM 95th %tile Q(veh)    | 0.7                                                                               | 0.2                                                                               | -                                                                                 | -                                                                                 | 0.1                                                                               | -                                                                                 | -    | 4.6                                                                               |        |      |                                                                                     |                                                                                     |

| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.3                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 1097                                                                              | 16   | 0    | 492                                                                               | 9                                                                                 | 0    |
| Future Vol, veh/h        | 1097                                                                              | 16   | 0    | 492                                                                               | 9                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                | 90   |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2    | 1                                                                                 | 14                                                                                | 2    |
| Mvmt Flow                | 1219                                                                              | 18   | 0    | 547                                                                               | 10                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1237   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 563    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 563    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 52.9 |
| HCM LOS              |    |    | F    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 85    | -   | -   | 563 | -   |
| HCM Lane V/C Ratio    | 0.118 | -   | -   | -   | -   |
| HCM Control Delay (s) | 52.9  | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.4   | -   | -   | 0   | -   |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 1.6                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 1100                                                                              | 27                                                                                | 3                                                                                 | 498                                                                               | 33                                                                                | 13                                                                                |
| Future Vol, veh/h        | 1100                                                                              | 27                                                                                | 3                                                                                 | 498                                                                               | 33                                                                                | 13                                                                                |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | -                                                                                 | 200                                                                               | 150                                                                               | -                                                                                 | 0                                                                                 | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                |
| Heavy Vehicles, %        | 9                                                                                 | 0                                                                                 | 0                                                                                 | 2                                                                                 | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                | 1196                                                                              | 29                                                                                | 3                                                                                 | 541                                                                               | 36                                                                                | 14                                                                                |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor              | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   | Minor1                                                                            |                                                                                   |
| Conflicting Flow All     | 0                                                                                 | 0                                                                                 | 1225                                                                              | 0                                                                                 | 1743                                                                              | 1196                                                                              |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 1196                                                                              | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 547                                                                               | -                                                                                 |
| Critical Hdwy            | -                                                                                 | -                                                                                 | 4.1                                                                               | -                                                                                 | 6.4                                                                               | 6.2                                                                               |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 5.4                                                                               | -                                                                                 |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 5.4                                                                               | -                                                                                 |
| Follow-up Hdwy           | -                                                                                 | -                                                                                 | 2.2                                                                               | -                                                                                 | 3.5                                                                               | 3.3                                                                               |
| Pot Cap-1 Maneuver       | -                                                                                 | -                                                                                 | 576                                                                               | -                                                                                 | 96                                                                                | 229                                                                               |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 289                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 584                                                                               | -                                                                                 |
| Platoon blocked, %       | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 |                                                                                   |                                                                                   |
| Mov Cap-1 Maneuver       | -                                                                                 | -                                                                                 | 576                                                                               | -                                                                                 | 96                                                                                | 229                                                                               |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 96                                                                                | -                                                                                 |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 289                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 581                                                                               | -                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                 | EB                                                                                |                                                                                   | WB                                                                                |                                                                                   | NB                                                                                |                                                                                   |
| HCM Control Delay, s     | 0                                                                                 |                                                                                   | 0.1                                                                               |                                                                                   | 58.5                                                                              |                                                                                   |
| HCM LOS                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   | F                                                                                 |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               |                                                                                   |
| Capacity (veh/h)         | 115                                                                               | -                                                                                 | -                                                                                 | 576                                                                               | -                                                                                 |                                                                                   |
| HCM Lane V/C Ratio       | 0.435                                                                             | -                                                                                 | -                                                                                 | 0.006                                                                             | -                                                                                 |                                                                                   |
| HCM Control Delay (s)    | 58.5                                                                              | -                                                                                 | -                                                                                 | 11.3                                                                              | -                                                                                 |                                                                                   |
| HCM Lane LOS             | F                                                                                 | -                                                                                 | -                                                                                 | B                                                                                 | -                                                                                 |                                                                                   |
| HCM 95th %tile Q(veh)    | 1.9                                                                               | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 |                                                                                   |



| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                     |                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh         | 25                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                     |                                                                                     |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations      |  |  |  |  |  |  |      |  |      |      |  |  |
| Traffic Vol, veh/h       | 96                                                                                | 1023                                                                              | 41                                                                                | 22                                                                                | 508                                                                               | 1                                                                                 | 24   | 7                                                                                 | 103  | 2    | 2                                                                                   | 65                                                                                  |
| Future Vol, veh/h        | 96                                                                                | 1023                                                                              | 41                                                                                | 22                                                                                | 508                                                                               | 1                                                                                 | 24   | 7                                                                                 | 103  | 2    | 2                                                                                   | 65                                                                                  |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0                                                                                   |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                | Stop                                                                                |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None                                                                              | -    | -                                                                                 | None | -    | -                                                                                   | None                                                                                |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                   | -                                                                                   |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                   | -                                                                                   |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                   | -                                                                                   |
| Peak Hour Factor         | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87   | 87                                                                                | 87   | 87   | 87                                                                                  | 87                                                                                  |
| Heavy Vehicles, %        | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0                                                                                   |
| Mvmt Flow                | 110                                                                               | 1176                                                                              | 47                                                                                | 25                                                                                | 584                                                                               | 1                                                                                 | 28   | 8                                                                                 | 118  | 2    | 2                                                                                   | 75                                                                                  |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |     |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|-----|
| Conflicting Flow All | 585    | 0 | 0 | 1223   | 0 | 0 | 2069   | 2031 | 588 | 1447   | 2078 | 585 |
| Stage 1              | -      | - | - | -      | - | - | 1396   | 1396 | -   | 635    | 635  | -   |
| Stage 2              | -      | - | - | -      | - | - | 673    | 635  | -   | 812    | 1443 | -   |
| Critical Hdwy        | 4.115  | - | - | 4.1    | - | - | 7.3    | 6.5  | 6.9 | 7.3    | 6.5  | 6.2 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.1    | 5.5  | -   |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.1    | 5.5  | -   | 6.5    | 5.5  | -   |
| Follow-up Hdwy       | 2.2095 | - | - | 2.2    | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3 |
| Pot Cap-1 Maneuver   | 994    | - | - | 577    | - | - | 36     | 58   | 457 | 102    | 54   | 515 |
| Stage 1              | -      | - | - | -      | - | - | 151    | 210  | -   | 470    | 476  | -   |
| Stage 2              | -      | - | - | -      | - | - | 448    | 476  | -   | 343    | 199  | -   |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -   | -      | -    | -   |
| Mov Cap-1 Maneuver   | 994    | - | - | 577    | - | - | ~ 26   | 49   | 457 | 59     | 46   | 515 |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | ~ 26   | 49   | -   | 59     | 46   | -   |
| Stage 1              | -      | - | - | -      | - | - | 134    | 187  | -   | 418    | 456  | -   |
| Stage 2              | -      | - | - | -      | - | - | 365    | 456  | -   | 216    | 177  | -   |

| Approach             | EB  |  |  | WB  |  |  | NB       |  |  | SB   |  |  |
|----------------------|-----|--|--|-----|--|--|----------|--|--|------|--|--|
| HCM Control Delay, s | 0.8 |  |  | 0.5 |  |  | \$ 334.3 |  |  | 18.8 |  |  |
| HCM LOS              |     |  |  |     |  |  | F        |  |  | C    |  |  |

| Minor Lane/Major Mvmt | NBLn1    | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|----------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 104      | 994   | -   | -   | 577   | -   | -   | 339   |
| HCM Lane V/C Ratio    | 1.481    | 0.111 | -   | -   | 0.044 | -   | -   | 0.234 |
| HCM Control Delay (s) | \$ 334.3 | 9.1   | -   | -   | 11.5  | -   | -   | 18.8  |
| HCM Lane LOS          | F        | A     | -   | -   | B     | -   | -   | C     |
| HCM 95th %tile Q(veh) | 11.3     | 0.4   | -   | -   | 0.1   | -   | -   | 0.9   |

| Notes                      |                        |                            |  |  |  |  |  |  |                                |  |  |  |
|----------------------------|------------------------|----------------------------|--|--|--|--|--|--|--------------------------------|--|--|--|
| ~: Volume exceeds capacity | \$: Delay exceeds 300s | +: Computation Not Defined |  |  |  |  |  |  | *: All major volume in platoon |  |  |  |

| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.6                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 589                                                                               | 12   | 1    | 1039                                                                              | 17                                                                                | 4    |
| Future Vol, veh/h        | 589                                                                               | 12   | 1    | 1039                                                                              | 17                                                                                | 4    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 7                                                                                 | 11   | 0    | 2                                                                                 | 0                                                                                 | 33   |
| Mvmt Flow                | 640                                                                               | 13   | 1    | 1129                                                                              | 18                                                                                | 4    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |       |
|----------------------|--------|--------|--------|---|------|-------|
| Conflicting Flow All | 0      | 0      | 653    | 0 | 1778 | 647   |
| Stage 1              | -      | -      | -      | - | 647  | -     |
| Stage 2              | -      | -      | -      | - | 1131 | -     |
| Critical Hdwy        | -      | -      | 4.1    | - | 6.4  | 6.53  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.4  | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.4  | -     |
| Follow-up Hdwy       | -      | -      | 2.2    | - | 3.5  | 3.597 |
| Pot Cap-1 Maneuver   | -      | -      | 943    | - | 92   | 420   |
| Stage 1              | -      | -      | -      | - | 525  | -     |
| Stage 2              | -      | -      | -      | - | 311  | -     |
| Platoon blocked, %   | -      | -      | -      | - | -    | -     |
| Mov Cap-1 Maneuver   | -      | -      | 943    | - | 92   | 420   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 92   | -     |
| Stage 1              | -      | -      | -      | - | 525  | -     |
| Stage 2              | -      | -      | -      | - | 310  | -     |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 47.1 |
| HCM LOS              |    |    | E    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 108   | -   | -   | 943   | -   |
| HCM Lane V/C Ratio    | 0.211 | -   | -   | 0.001 | -   |
| HCM Control Delay (s) | 47.1  | -   | -   | 8.8   | 0   |
| HCM Lane LOS          | E     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.8   | -   | -   | 0     | -   |

| Intersection               |          |                        |        |                            |          |                                |
|----------------------------|----------|------------------------|--------|----------------------------|----------|--------------------------------|
| Int Delay, s/veh           | 65.3     |                        |        |                            |          |                                |
| Movement                   | EBT      | EBR                    | WBL    | WBT                        | NBL      | NBR                            |
| Lane Configurations        | ↑        | ↗                      | ↖      | ↑                          | ↘        |                                |
| Traffic Vol, veh/h         | 531      | 90                     | 53     | 1004                       | 105      | 70                             |
| Future Vol, veh/h          | 531      | 90                     | 53     | 1004                       | 105      | 70                             |
| Conflicting Peds, #/hr     | 0        | 0                      | 0      | 0                          | 0        | 0                              |
| Sign Control               | Free     | Free                   | Free   | Free                       | Stop     | Stop                           |
| RT Channelized             | -        | None                   | -      | None                       | -        | None                           |
| Storage Length             | -        | 200                    | 150    | -                          | 0        | -                              |
| Veh in Median Storage, #   | 0        | -                      | -      | 0                          | 0        | -                              |
| Grade, %                   | 0        | -                      | -      | 0                          | 0        | -                              |
| Peak Hour Factor           | 83       | 83                     | 83     | 83                         | 83       | 83                             |
| Heavy Vehicles, %          | 4        | 3                      | 3      | 2                          | 9        | 10                             |
| Mvmt Flow                  | 640      | 108                    | 64     | 1210                       | 127      | 84                             |
|                            |          |                        |        |                            |          |                                |
| Major/Minor                | Major1   |                        | Major2 |                            | Minor1   |                                |
| Conflicting Flow All       | 0        | 0                      | 748    | 0                          | 1978     | 640                            |
| Stage 1                    | -        | -                      | -      | -                          | 640      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 1338     | -                              |
| Critical Hdwy              | -        | -                      | 4.13   | -                          | 6.49     | 6.3                            |
| Critical Hdwy Stg 1        | -        | -                      | -      | -                          | 5.49     | -                              |
| Critical Hdwy Stg 2        | -        | -                      | -      | -                          | 5.49     | -                              |
| Follow-up Hdwy             | -        | -                      | 2.227  | -                          | 3.581    | 3.39                           |
| Pot Cap-1 Maneuver         | -        | -                      | 856    | -                          | ~ 65     | 461                            |
| Stage 1                    | -        | -                      | -      | -                          | 512      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 236      | -                              |
| Platoon blocked, %         | -        | -                      |        | -                          |          |                                |
| Mov Cap-1 Maneuver         | -        | -                      | 856    | -                          | ~ 60     | 461                            |
| Mov Cap-2 Maneuver         | -        | -                      | -      | -                          | ~ 60     | -                              |
| Stage 1                    | -        | -                      | -      | -                          | 512      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 218      | -                              |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Approach                   | EB       |                        | WB     |                            | NB       |                                |
| HCM Control Delay, s       | 0        |                        | 0.5    |                            | \$ 688.1 |                                |
| HCM LOS                    | F        |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Minor Lane/Major Mvmt      | NBLn1    | EBT                    | EBR    | WBL                        | WBT      |                                |
| Capacity (veh/h)           | 92       | -                      | -      | 856                        | -        |                                |
| HCM Lane V/C Ratio         | 2.292    | -                      | -      | 0.075                      | -        |                                |
| HCM Control Delay (s)      | \$ 688.1 | -                      | -      | 9.5                        | -        |                                |
| HCM Lane LOS               | F        | -                      | -      | A                          | -        |                                |
| HCM 95th %tile Q(veh)      | 19       | -                      | -      | 0.2                        | -        |                                |
| Notes                      |          |                        |        |                            |          |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |        | +: Computation Not Defined |          | *: All major volume in platoon |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |        |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 8.7                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |        |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL    | NBT                                                                               | NBR  | SBL    | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |        |  |      |        |  |  |
| Traffic Vol, veh/h       | 38                                                                                | 569                                                                               | 4                                                                                 | 26                                                                                | 1077                                                                              | 5                                                                                 | 4      | 0                                                                                 | 37   | 15     | 1                                                                                 | 125                                                                               |
| Future Vol, veh/h        | 38                                                                                | 569                                                                               | 4                                                                                 | 26                                                                                | 1077                                                                              | 5                                                                                 | 4      | 0                                                                                 | 37   | 15     | 1                                                                                 | 125                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0      | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop   | Stop                                                                              | Stop | Stop   | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None                                                                              | -      | -                                                                                 | None | -      | -                                                                                 | None                                                                              |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -                                                                                 | -      | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -      | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -      | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90     | 90                                                                                | 90   | 90     | 90                                                                                | 90                                                                                |
| Heavy Vehicles, %        | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0                                                                                 | 0      | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                | 42                                                                                | 632                                                                               | 4                                                                                 | 29                                                                                | 1197                                                                              | 6                                                                                 | 4      | 0                                                                                 | 41   | 17     | 1                                                                                 | 139                                                                               |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |        |                                                                                   |                                                                                   |
| Major/Minor              | Major1                                                                            |                                                                                   |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   | Minor1 |                                                                                   |      | Minor2 |                                                                                   |                                                                                   |
| Conflicting Flow All     | 1203                                                                              | 0                                                                                 | 0                                                                                 | 636                                                                               | 0                                                                                 | 0                                                                                 | 2044   | 1977                                                                              | 316  | 1658   | 1978                                                                              | 1200                                                                              |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 716    | 716                                                                               | -    | 1258   | 1258                                                                              | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 1328   | 1261                                                                              | -    | 400    | 720                                                                               | -                                                                                 |
| Critical Hdwy            | 4.1                                                                               | -                                                                                 | -                                                                                 | 4.175                                                                             | -                                                                                 | -                                                                                 | 7.3    | 6.5                                                                               | 6.9  | 7.3    | 6.5                                                                               | 6.2                                                                               |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 6.5    | 5.5                                                                               | -    | 6.1    | 5.5                                                                               | -                                                                                 |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 6.1    | 5.5                                                                               | -    | 6.5    | 5.5                                                                               | -                                                                                 |
| Follow-up Hdwy           | 2.2                                                                               | -                                                                                 | -                                                                                 | 2.2475                                                                            | -                                                                                 | -                                                                                 | 3.5    | 4                                                                                 | 3.3  | 3.5    | 4                                                                                 | 3.3                                                                               |
| Pot Cap-1 Maneuver       | 587                                                                               | -                                                                                 | -                                                                                 | 928                                                                               | -                                                                                 | -                                                                                 | 38     | 63                                                                                | 686  | 72     | 63                                                                                | 228                                                                               |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 392    | 437                                                                               | -    | 212    | 245                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 193    | 244                                                                               | -    | 603    | 435                                                                               | -                                                                                 |
| Platoon blocked, %       |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 | -                                                                                 |        |                                                                                   |      |        |                                                                                   |                                                                                   |
| Mov Cap-1 Maneuver       | 587                                                                               | -                                                                                 | -                                                                                 | 928                                                                               | -                                                                                 | -                                                                                 | 13     | 57                                                                                | 686  | 62     | 57                                                                                | 228                                                                               |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 13     | 57                                                                                | -    | 62     | 57                                                                                | -                                                                                 |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 364    | 406                                                                               | -    | 197    | 237                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 73     | 236                                                                               | -    | 526    | 404                                                                               | -                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |        |                                                                                   |                                                                                   |
| Approach                 | EB                                                                                |                                                                                   |                                                                                   | WB                                                                                |                                                                                   |                                                                                   | NB     |                                                                                   |      | SB     |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 0.7                                                                               |                                                                                   |                                                                                   | 0.2                                                                               |                                                                                   |                                                                                   | 56.9   |                                                                                   |      | 96     |                                                                                   |                                                                                   |
| HCM LOS                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | F      |                                                                                   |      | F      |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |        |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR    | SBLn1                                                                             |      |        |                                                                                   |                                                                                   |
| Capacity (veh/h)         | 113                                                                               | 587                                                                               | -                                                                                 | -                                                                                 | 928                                                                               | -                                                                                 | -      | 175                                                                               |      |        |                                                                                   |                                                                                   |
| HCM Lane V/C Ratio       | 0.403                                                                             | 0.072                                                                             | -                                                                                 | -                                                                                 | 0.031                                                                             | -                                                                                 | -      | 0.895                                                                             |      |        |                                                                                   |                                                                                   |
| HCM Control Delay (s)    | 56.9                                                                              | 11.6                                                                              | -                                                                                 | -                                                                                 | 9                                                                                 | -                                                                                 | -      | 96                                                                                |      |        |                                                                                   |                                                                                   |
| HCM Lane LOS             | F                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 | A                                                                                 | -                                                                                 | -      | F                                                                                 |      |        |                                                                                   |                                                                                   |
| HCM 95th %tile Q(veh)    | 1.7                                                                               | 0.2                                                                               | -                                                                                 | -                                                                                 | 0.1                                                                               | -                                                                                 | -      | 6.6                                                                               |      |        |                                                                                   |                                                                                   |

| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.4                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 1183                                                                              | 17   | 0    | 531                                                                               | 10                                                                                | 0    |
| Future Vol, veh/h        | 1183                                                                              | 17   | 0    | 531                                                                               | 10                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                | 90   |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2    | 1                                                                                 | 14                                                                                | 2    |
| Mvmt Flow                | 1314                                                                              | 19   | 0    | 590                                                                               | 11                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1333   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 518    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 518    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 66.9 |
| HCM LOS              |    |    | F    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 69    | -   | -   | 518 | -   |
| HCM Lane V/C Ratio    | 0.161 | -   | -   | -   | -   |
| HCM Control Delay (s) | 66.9  | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.5   | -   | -   | 0   | -   |



| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 2.4    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑      | ↗    | ↖      | ↑     | ↘↗     |      |
| Traffic Vol, veh/h       | 1187   | 30   | 4      | 538   | 36     | 14   |
| Future Vol, veh/h        | 1187   | 30   | 4      | 538   | 36     | 14   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1290   | 33   | 4      | 585   | 39     | 15   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1323   | 0     | 1883   | 1290 |
| Stage 1                  | -      | -    | -      | -     | 1290   | -    |
| Stage 2                  | -      | -    | -      | -     | 593    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.4    | 6.2  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.4    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.4    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 529    | -     | 79     | 202  |
| Stage 1                  | -      | -    | -      | -     | 261    | -    |
| Stage 2                  | -      | -    | -      | -     | 556    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 529    | -     | 78     | 202  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 78     | -    |
| Stage 1                  | -      | -    | -      | -     | 261    | -    |
| Stage 2                  | -      | -    | -      | -     | 552    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.1    |       | 86.1   |      |
| HCM LOS                  |        |      |        |       | F      |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 94     | -    | -      | 529   | -      |      |
| HCM Lane V/C Ratio       | 0.578  | -    | -      | 0.008 | -      |      |
| HCM Control Delay (s)    | 86.1   | -    | -      | 11.9  | -      |      |
| HCM Lane LOS             | F      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 2.7    | -    | -      | 0     | -      |      |

| Intersection               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                |        |                                                                                   |      |        |                                                                                     |      |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------|--------|-----------------------------------------------------------------------------------|------|--------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh           | 45.1                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                |        |                                                                                   |      |        |                                                                                     |      |
| Movement                   | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                            | NBL    | NBT                                                                               | NBR  | SBL    | SBT                                                                                 | SBR  |
| Lane Configurations        |  |  |  |  |  |                                |        |  |      |        |  |      |
| Traffic Vol, veh/h         | 103                                                                               | 1103                                                                              | 44                                                                                | 23                                                                                | 549                                                                               | 1                              | 26     | 7                                                                                 | 111  | 2      | 2                                                                                   | 70   |
| Future Vol, veh/h          | 103                                                                               | 1103                                                                              | 44                                                                                | 23                                                                                | 549                                                                               | 1                              | 26     | 7                                                                                 | 111  | 2      | 2                                                                                   | 70   |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                              | 0      | 0                                                                                 | 0    | 0      | 0                                                                                   | 0    |
| Sign Control               | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                           | Stop   | Stop                                                                              | Stop | Stop   | Stop                                                                                | Stop |
| RT Channelized             | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None                           | -      | -                                                                                 | None | -      | -                                                                                   | None |
| Storage Length             | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -                              | -      | -                                                                                 | -    | -      | -                                                                                   | -    |
| Veh in Median Storage, #   | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                              | -      | 0                                                                                 | -    | -      | 0                                                                                   | -    |
| Grade, %                   | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                              | -      | 0                                                                                 | -    | -      | 0                                                                                   | -    |
| Peak Hour Factor           | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                             | 87     | 87                                                                                | 87   | 87     | 87                                                                                  | 87   |
| Heavy Vehicles, %          | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0                              | 0      | 0                                                                                 | 0    | 0      | 0                                                                                   | 0    |
| Mvmt Flow                  | 118                                                                               | 1268                                                                              | 51                                                                                | 26                                                                                | 631                                                                               | 1                              | 30     | 8                                                                                 | 128  | 2      | 2                                                                                   | 80   |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                |        |                                                                                   |      |        |                                                                                     |      |
| Major/Minor                | Major1                                                                            |                                                                                   |                                                                                   | Major2                                                                            |                                                                                   |                                | Minor1 |                                                                                   |      | Minor2 |                                                                                     |      |
| Conflicting Flow All       | 632                                                                               | 0                                                                                 | 0                                                                                 | 1319                                                                              | 0                                                                                 | 0                              | 2229   | 2188                                                                              | 634  | 1558   | 2239                                                                                | 632  |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | 1504   | 1504                                                                              | -    | 684    | 684                                                                                 | -    |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | 725    | 684                                                                               | -    | 874    | 1555                                                                                | -    |
| Critical Hdwy              | 4.115                                                                             | -                                                                                 | -                                                                                 | 4.1                                                                               | -                                                                                 | -                              | 7.3    | 6.5                                                                               | 6.9  | 7.3    | 6.5                                                                                 | 6.2  |
| Critical Hdwy Stg 1        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | 6.5    | 5.5                                                                               | -    | 6.1    | 5.5                                                                                 | -    |
| Critical Hdwy Stg 2        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | 6.1    | 5.5                                                                               | -    | 6.5    | 5.5                                                                                 | -    |
| Follow-up Hdwy             | 2.2095                                                                            | -                                                                                 | -                                                                                 | 2.2                                                                               | -                                                                                 | -                              | 3.5    | 4                                                                                 | 3.3  | 3.5    | 4                                                                                   | 3.3  |
| Pot Cap-1 Maneuver         | 955                                                                               | -                                                                                 | -                                                                                 | 531                                                                               | -                                                                                 | -                              | ~ 27   | 46                                                                                | 427  | 85     | 43                                                                                  | 484  |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | 130    | 186                                                                               | -    | 442    | 452                                                                                 | -    |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | 420    | 452                                                                               | -    | 315    | 176                                                                                 | -    |
| Platoon blocked, %         |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 | -                              |        |                                                                                   |      |        |                                                                                     |      |
| Mov Cap-1 Maneuver         | 955                                                                               | -                                                                                 | -                                                                                 | 531                                                                               | -                                                                                 | -                              | ~ 19   | 38                                                                                | 427  | 44     | 36                                                                                  | 484  |
| Mov Cap-2 Maneuver         | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | ~ 19   | 38                                                                                | -    | 44     | 36                                                                                  | -    |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | 114    | 163                                                                               | -    | 387    | 430                                                                                 | -    |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                              | 331    | 430                                                                               | -    | 184    | 154                                                                                 | -    |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                |        |                                                                                   |      |        |                                                                                     |      |
| Approach                   | EB                                                                                |                                                                                   |                                                                                   | WB                                                                                |                                                                                   |                                | NB     |                                                                                   |      | SB     |                                                                                     |      |
| HCM Control Delay, s       | 0.8                                                                               |                                                                                   |                                                                                   | 0.5                                                                               |                                                                                   |                                | \$ 619 |                                                                                   |      | 21.6   |                                                                                     |      |
| HCM LOS                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                | F      |                                                                                   |      | C      |                                                                                     |      |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                |        |                                                                                   |      |        |                                                                                     |      |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                            | WBR    | SBLn1                                                                             |      |        |                                                                                     |      |
| Capacity (veh/h)           | 79                                                                                | 955                                                                               | -                                                                                 | -                                                                                 | 531                                                                               | -                              | -      | 301                                                                               |      |        |                                                                                     |      |
| HCM Lane V/C Ratio         | 2.095                                                                             | 0.124                                                                             | -                                                                                 | -                                                                                 | 0.05                                                                              | -                              | -      | 0.283                                                                             |      |        |                                                                                     |      |
| HCM Control Delay (s)      | \$ 619                                                                            | 9.3                                                                               | -                                                                                 | -                                                                                 | 12.1                                                                              | -                              | -      | 21.6                                                                              |      |        |                                                                                     |      |
| HCM Lane LOS               | F                                                                                 | A                                                                                 | -                                                                                 | -                                                                                 | B                                                                                 | -                              | -      | C                                                                                 |      |        |                                                                                     |      |
| HCM 95th %tile Q(veh)      | 15                                                                                | 0.4                                                                               | -                                                                                 | -                                                                                 | 0.2                                                                               | -                              | -      | 1.1                                                                               |      |        |                                                                                     |      |
| Notes                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                |        |                                                                                   |      |        |                                                                                     |      |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s                                                            |                                                                                   | +: Computation Not Defined                                                        |                                                                                   | *: All major volume in platoon |        |                                                                                   |      |        |                                                                                     |      |

## APPENDIX K

### CAPACITY ANALYSIS REPORTS - BUILD CONDITIONS



| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.5                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 693                                                                               | 11   | 1    | 958                                                                               | 15                                                                                | 3    |
| Future Vol, veh/h        | 693                                                                               | 11   | 1    | 958                                                                               | 15                                                                                | 3    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 7                                                                                 | 11   | 0    | 2                                                                                 | 0                                                                                 | 33   |
| Mvmt Flow                | 753                                                                               | 12   | 1    | 1041                                                                              | 16                                                                                | 3    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |       |
|----------------------|--------|--------|--------|---|------|-------|
| Conflicting Flow All | 0      | 0      | 765    | 0 | 1802 | 759   |
| Stage 1              | -      | -      | -      | - | 759  | -     |
| Stage 2              | -      | -      | -      | - | 1043 | -     |
| Critical Hdwy        | -      | -      | 4.1    | - | 6.4  | 6.53  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.4  | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.4  | -     |
| Follow-up Hdwy       | -      | -      | 2.2    | - | 3.5  | 3.597 |
| Pot Cap-1 Maneuver   | -      | -      | 857    | - | 89   | 360   |
| Stage 1              | -      | -      | -      | - | 466  | -     |
| Stage 2              | -      | -      | -      | - | 342  | -     |
| Platoon blocked, %   | -      | -      | -      | - | -    | -     |
| Mov Cap-1 Maneuver   | -      | -      | 857    | - | 89   | 360   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 89   | -     |
| Stage 1              | -      | -      | -      | - | 466  | -     |
| Stage 2              | -      | -      | -      | - | 341  | -     |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 48.5 |
| HCM LOS              |    |    | E    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 102   | -   | -   | 857   | -   |
| HCM Lane V/C Ratio    | 0.192 | -   | -   | 0.001 | -   |
| HCM Control Delay (s) | 48.5  | -   | -   | 9.2   | 0   |
| HCM Lane LOS          | E     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.7   | -   | -   | 0     | -   |

| Intersection               |        |                        |        |                            |        |                                |
|----------------------------|--------|------------------------|--------|----------------------------|--------|--------------------------------|
| Int Delay, s/veh           | 61.8   |                        |        |                            |        |                                |
| Movement                   | EBT    | EBR                    | WBL    | WBT                        | NBL    | NBR                            |
| Lane Configurations        | ↑      | ↗                      | ↖      | ↑                          | ↘      |                                |
| Traffic Vol, veh/h         | 516    | 77                     | 82     | 1039                       | 90     | 72                             |
| Future Vol, veh/h          | 516    | 77                     | 82     | 1039                       | 90     | 72                             |
| Conflicting Peds, #/hr     | 0      | 0                      | 0      | 0                          | 0      | 0                              |
| Sign Control               | Free   | Free                   | Free   | Free                       | Stop   | Stop                           |
| RT Channelized             | -      | None                   | -      | None                       | -      | None                           |
| Storage Length             | -      | 200                    | 150    | -                          | 0      | -                              |
| Veh in Median Storage, #   | 0      | -                      | -      | 0                          | 0      | -                              |
| Grade, %                   | 0      | -                      | -      | 0                          | 0      | -                              |
| Peak Hour Factor           | 83     | 83                     | 83     | 83                         | 83     | 83                             |
| Heavy Vehicles, %          | 4      | 3                      | 3      | 2                          | 9      | 10                             |
| Mvmt Flow                  | 622    | 93                     | 99     | 1252                       | 108    | 87                             |
|                            |        |                        |        |                            |        |                                |
| Major/Minor                | Major1 |                        | Major2 |                            | Minor1 |                                |
| Conflicting Flow All       | 0      | 0                      | 715    | 0                          | 2072   | 622                            |
| Stage 1                    | -      | -                      | -      | -                          | 622    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 1450   | -                              |
| Critical Hdwy              | -      | -                      | 4.13   | -                          | 6.49   | 6.3                            |
| Critical Hdwy Stg 1        | -      | -                      | -      | -                          | 5.49   | -                              |
| Critical Hdwy Stg 2        | -      | -                      | -      | -                          | 5.49   | -                              |
| Follow-up Hdwy             | -      | -                      | 2.227  | -                          | 3.581  | 3.39                           |
| Pot Cap-1 Maneuver         | -      | -                      | 881    | -                          | ~ 57   | 472                            |
| Stage 1                    | -      | -                      | -      | -                          | 522    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 208    | -                              |
| Platoon blocked, %         | -      | -                      |        | -                          |        |                                |
| Mov Cap-1 Maneuver         | -      | -                      | 881    | -                          | ~ 51   | 472                            |
| Mov Cap-2 Maneuver         | -      | -                      | -      | -                          | ~ 51   | -                              |
| Stage 1                    | -      | -                      | -      | -                          | 522    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 185    | -                              |
|                            |        |                        |        |                            |        |                                |
| Approach                   | EB     |                        | WB     |                            | NB     |                                |
| HCM Control Delay, s       | 0      |                        | 0.7    |                            | \$ 711 |                                |
| HCM LOS                    | F      |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Minor Lane/Major Mvmt      | NBLn1  | EBT                    | EBR    | WBL                        | WBT    |                                |
| Capacity (veh/h)           | 84     | -                      | -      | 881                        | -      |                                |
| HCM Lane V/C Ratio         | 2.324  | -                      | -      | 0.112                      | -      |                                |
| HCM Control Delay (s)      | \$ 711 | -                      | -      | 9.6                        | -      |                                |
| HCM Lane LOS               | F      | -                      | -      | A                          | -      |                                |
| HCM 95th %tile Q(veh)      | 18     | -                      | -      | 0.4                        | -      |                                |
| Notes                      |        |                        |        |                            |        |                                |
| ~: Volume exceeds capacity |        | \$: Delay exceeds 300s |        | +: Computation Not Defined |        | *: All major volume in platoon |



| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|------|--------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh         | 6.5                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |                                                                                     |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL    | NBT                                                                               | NBR  | SBL    | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations      |  |  |  |  |  |      |        |  |      |        |  |  |
| Traffic Vol, veh/h       | 33                                                                                | 546                                                                               | 3                                                                                 | 28                                                                                | 1095                                                                              | 6    | 3      | 0                                                                                 | 34   | 14     | 1                                                                                   | 108                                                                                 |
| Future Vol, veh/h        | 33                                                                                | 546                                                                               | 3                                                                                 | 28                                                                                | 1095                                                                              | 6    | 3      | 0                                                                                 | 34   | 14     | 1                                                                                   | 108                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0      | 0                                                                                 | 0    | 0      | 0                                                                                   | 0                                                                                   |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop   | Stop                                                                              | Stop | Stop   | Stop                                                                                | Stop                                                                                |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -      | -                                                                                 | None | -      | -                                                                                   | None                                                                                |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -      | -                                                                                 | -    | -      | -                                                                                   | -                                                                                   |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -    | -      | 0                                                                                   | -                                                                                   |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -    | -      | 0                                                                                   | -                                                                                   |
| Peak Hour Factor         | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90   | 90     | 90                                                                                | 90   | 90     | 90                                                                                  | 90                                                                                  |
| Heavy Vehicles, %        | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0    | 0      | 0                                                                                 | 0    | 0      | 0                                                                                   | 0                                                                                   |
| Mvmt Flow                | 37                                                                                | 607                                                                               | 3                                                                                 | 31                                                                                | 1217                                                                              | 7    | 3      | 0                                                                                 | 38   | 16     | 1                                                                                   | 120                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |                                                                                     |
| Major/Minor              | Major1                                                                            |                                                                                   |                                                                                   | Major2                                                                            |                                                                                   |      | Minor1 |                                                                                   |      | Minor2 |                                                                                     |                                                                                     |
| Conflicting Flow All     | 1224                                                                              | 0                                                                                 | 0                                                                                 | 610                                                                               | 0                                                                                 | 0    | 2024   | 1967                                                                              | 304  | 1661   | 1967                                                                                | 1221                                                                                |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 681    | 681                                                                               | -    | 1283   | 1283                                                                                | -                                                                                   |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 1343   | 1286                                                                              | -    | 378    | 684                                                                                 | -                                                                                   |
| Critical Hdwy            | 4.1                                                                               | -                                                                                 | -                                                                                 | 4.175                                                                             | -                                                                                 | -    | 7.3    | 6.5                                                                               | 6.9  | 7.3    | 6.5                                                                                 | 6.2                                                                                 |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.5    | 5.5                                                                               | -    | 6.1    | 5.5                                                                                 | -                                                                                   |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.1    | 5.5                                                                               | -    | 6.5    | 5.5                                                                                 | -                                                                                   |
| Follow-up Hdwy           | 2.2                                                                               | -                                                                                 | -                                                                                 | 2.2475                                                                            | -                                                                                 | -    | 3.5    | 4                                                                                 | 3.3  | 3.5    | 4                                                                                   | 3.3                                                                                 |
| Pot Cap-1 Maneuver       | 577                                                                               | -                                                                                 | -                                                                                 | 949                                                                               | -                                                                                 | -    | 39     | 64                                                                                | 698  | 71     | 64                                                                                  | 221                                                                                 |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 411    | 453                                                                               | -    | 205    | 238                                                                                 | -                                                                                   |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 189    | 237                                                                               | -    | 621    | 452                                                                                 | -                                                                                   |
| Platoon blocked, %       |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 | -    |        |                                                                                   |      |        |                                                                                     |                                                                                     |
| Mov Cap-1 Maneuver       | 577                                                                               | -                                                                                 | -                                                                                 | 949                                                                               | -                                                                                 | -    | 16     | 58                                                                                | 698  | 62     | 58                                                                                  | 221                                                                                 |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 16     | 58                                                                                | -    | 62     | 58                                                                                  | -                                                                                   |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 385    | 424                                                                               | -    | 192    | 230                                                                                 | -                                                                                   |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 83     | 229                                                                               | -    | 550    | 423                                                                                 | -                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |                                                                                     |
| Approach                 | EB                                                                                |                                                                                   |                                                                                   | WB                                                                                |                                                                                   |      | NB     |                                                                                   |      | SB     |                                                                                     |                                                                                     |
| HCM Control Delay, s     | 0.7                                                                               |                                                                                   |                                                                                   | 0.2                                                                               |                                                                                   |      | 35.9   |                                                                                   |      | 82.5   |                                                                                     |                                                                                     |
| HCM LOS                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      | E      |                                                                                   |      | F      |                                                                                     |                                                                                     |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |                                                                                     |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT  | WBR    | SBLn1                                                                             |      |        |                                                                                     |                                                                                     |
| Capacity (veh/h)         | 157                                                                               | 577                                                                               | -                                                                                 | -                                                                                 | 949                                                                               | -    | -      | 168                                                                               |      |        |                                                                                     |                                                                                     |
| HCM Lane V/C Ratio       | 0.262                                                                             | 0.064                                                                             | -                                                                                 | -                                                                                 | 0.033                                                                             | -    | -      | 0.813                                                                             |      |        |                                                                                     |                                                                                     |
| HCM Control Delay (s)    | 35.9                                                                              | 11.7                                                                              | -                                                                                 | -                                                                                 | 8.9                                                                               | -    | -      | 82.5                                                                              |      |        |                                                                                     |                                                                                     |
| HCM Lane LOS             | E                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 | A                                                                                 | -    | -      | F                                                                                 |      |        |                                                                                     |                                                                                     |
| HCM 95th %tile Q(veh)    | 1                                                                                 | 0.2                                                                               | -                                                                                 | -                                                                                 | 0.1                                                                               | -    | -      | 5.5                                                                               |      |        |                                                                                     |                                                                                     |

| Intersection               |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
|----------------------------|-----------------------------------------------------------------------------------|------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------|
| Int Delay, s/veh           | 210.2                                                                             |                        |        |                                                                                   |                                                                                   |                                |
| Movement                   | EBT                                                                               | EBR                    | WBL    | WBT                                                                               | NBL                                                                               | NBR                            |
| Lane Configurations        |  |                        |        |  |  |                                |
| Traffic Vol, veh/h         | 518                                                                               | 70                     | 62     | 911                                                                               | 210                                                                               | 185                            |
| Future Vol, veh/h          | 518                                                                               | 70                     | 62     | 911                                                                               | 210                                                                               | 185                            |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                      | 0      | 0                                                                                 | 0                                                                                 | 0                              |
| Sign Control               | Free                                                                              | Free                   | Free   | Free                                                                              | Stop                                                                              | Stop                           |
| RT Channelized             | -                                                                                 | None                   | -      | None                                                                              | -                                                                                 | None                           |
| Storage Length             | -                                                                                 | -                      | -      | -                                                                                 | 0                                                                                 | -                              |
| Veh in Median Storage, #   | 0                                                                                 | -                      | -      | 0                                                                                 | 0                                                                                 | -                              |
| Grade, %                   | 0                                                                                 | -                      | -      | 0                                                                                 | 0                                                                                 | -                              |
| Peak Hour Factor           | 92                                                                                | 92                     | 92     | 92                                                                                | 92                                                                                | 92                             |
| Heavy Vehicles, %          | 2                                                                                 | 2                      | 2      | 2                                                                                 | 2                                                                                 | 2                              |
| Mvmt Flow                  | 563                                                                               | 76                     | 67     | 990                                                                               | 228                                                                               | 201                            |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| Major/Minor                | Major1                                                                            | Major2                 | Minor1 |                                                                                   |                                                                                   |                                |
| Conflicting Flow All       | 0                                                                                 | 0                      | 639    | 0                                                                                 | 1725                                                                              | 601                            |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 601                                                                               | -                              |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | 1124                                                                              | -                              |
| Critical Hdwy              | -                                                                                 | -                      | 4.12   | -                                                                                 | 6.42                                                                              | 6.22                           |
| Critical Hdwy Stg 1        | -                                                                                 | -                      | -      | -                                                                                 | 5.42                                                                              | -                              |
| Critical Hdwy Stg 2        | -                                                                                 | -                      | -      | -                                                                                 | 5.42                                                                              | -                              |
| Follow-up Hdwy             | -                                                                                 | -                      | 2.218  | -                                                                                 | 3.518                                                                             | 3.318                          |
| Pot Cap-1 Maneuver         | -                                                                                 | -                      | 945    | -                                                                                 | ~ 98                                                                              | 500                            |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 547                                                                               | -                              |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | 310                                                                               | -                              |
| Platoon blocked, %         | -                                                                                 | -                      | -      | -                                                                                 | -                                                                                 | -                              |
| Mov Cap-1 Maneuver         | -                                                                                 | -                      | 945    | -                                                                                 | ~ 83                                                                              | 500                            |
| Mov Cap-2 Maneuver         | -                                                                                 | -                      | -      | -                                                                                 | ~ 83                                                                              | -                              |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 547                                                                               | -                              |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | 261                                                                               | -                              |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| Approach                   | EB                                                                                | WB                     |        | NB                                                                                |                                                                                   |                                |
| HCM Control Delay, s       | 0                                                                                 | 0.6                    |        | \$ 1039.4                                                                         |                                                                                   |                                |
| HCM LOS                    | F                                                                                 |                        |        |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBT                    | EBR    | WBL                                                                               | WBT                                                                               |                                |
| Capacity (veh/h)           | 136                                                                               | -                      | -      | 945                                                                               | -                                                                                 |                                |
| HCM Lane V/C Ratio         | 3.157                                                                             | -                      | -      | 0.071                                                                             | -                                                                                 |                                |
| HCM Control Delay (s)      | \$ 1039.4                                                                         | -                      | -      | 9.1                                                                               | 0                                                                                 |                                |
| HCM Lane LOS               | F                                                                                 | -                      | -      | A                                                                                 | A                                                                                 |                                |
| HCM 95th %tile Q(veh)      | 40.6                                                                              | -                      | -      | 0.2                                                                               | -                                                                                 |                                |
| Notes                      |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s |        | +: Computation Not Defined                                                        |                                                                                   | *: All major volume in platoon |

| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.3                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 1144                                                                              | 15   | 0    | 666                                                                               | 8                                                                                 | 0    |
| Future Vol, veh/h        | 1144                                                                              | 15   | 0    | 666                                                                               | 8                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                | 90   |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2    | 1                                                                                 | 14                                                                                | 2    |
| Mvmt Flow                | 1271                                                                              | 17   | 0    | 740                                                                               | 9                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1288   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 538    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 538    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 76.6 |
| HCM LOS              |    |    | F    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 59    | -   | -   | 538 | -   |
| HCM Lane V/C Ratio    | 0.151 | -   | -   | -   | -   |
| HCM Control Delay (s) | 76.6  | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.5   | -   | -   | 0   | -   |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 5.4                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 1219                                                                              | 25                                                                                | 27                                                                                | 580                                                                               | 31                                                                                | 52                                                                                |
| Future Vol, veh/h        | 1219                                                                              | 25                                                                                | 27                                                                                | 580                                                                               | 31                                                                                | 52                                                                                |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | -                                                                                 | 200                                                                               | 150                                                                               | -                                                                                 | 0                                                                                 | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                |
| Heavy Vehicles, %        | 9                                                                                 | 0                                                                                 | 0                                                                                 | 2                                                                                 | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                | 1325                                                                              | 27                                                                                | 29                                                                                | 630                                                                               | 34                                                                                | 57                                                                                |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor              | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   | Minor1                                                                            |                                                                                   |
| Conflicting Flow All     | 0                                                                                 | 0                                                                                 | 1352                                                                              | 0                                                                                 | 2013                                                                              | 1325                                                                              |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 1325                                                                              | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 688                                                                               | -                                                                                 |
| Critical Hdwy            | -                                                                                 | -                                                                                 | 4.1                                                                               | -                                                                                 | 6.4                                                                               | 6.2                                                                               |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 5.4                                                                               | -                                                                                 |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 5.4                                                                               | -                                                                                 |
| Follow-up Hdwy           | -                                                                                 | -                                                                                 | 2.2                                                                               | -                                                                                 | 3.5                                                                               | 3.3                                                                               |
| Pot Cap-1 Maneuver       | -                                                                                 | -                                                                                 | 516                                                                               | -                                                                                 | 65                                                                                | 192                                                                               |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 251                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 503                                                                               | -                                                                                 |
| Platoon blocked, %       | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 |                                                                                   |                                                                                   |
| Mov Cap-1 Maneuver       | -                                                                                 | -                                                                                 | 516                                                                               | -                                                                                 | 61                                                                                | 192                                                                               |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 61                                                                                | -                                                                                 |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 251                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 475                                                                               | -                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                 | EB                                                                                |                                                                                   | WB                                                                                |                                                                                   | NB                                                                                |                                                                                   |
| HCM Control Delay, s     | 0                                                                                 |                                                                                   | 0.6                                                                               |                                                                                   | 121.7                                                                             |                                                                                   |
| HCM LOS                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   | F                                                                                 |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               |                                                                                   |
| Capacity (veh/h)         | 107                                                                               | -                                                                                 | -                                                                                 | 516                                                                               | -                                                                                 |                                                                                   |
| HCM Lane V/C Ratio       | 0.843                                                                             | -                                                                                 | -                                                                                 | 0.057                                                                             | -                                                                                 |                                                                                   |
| HCM Control Delay (s)    | 121.7                                                                             | -                                                                                 | -                                                                                 | 12.4                                                                              | -                                                                                 |                                                                                   |
| HCM Lane LOS             | F                                                                                 | -                                                                                 | -                                                                                 | B                                                                                 | -                                                                                 |                                                                                   |
| HCM 95th %tile Q(veh)    | 4.9                                                                               | -                                                                                 | -                                                                                 | 0.2                                                                               | -                                                                                 |                                                                                   |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 34.9                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |  |  |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 89                                                                                | 1138                                                                              | 38                                                                                | 24                                                                                | 584                                                                               | 3    | 22   | 6                                                                                 | 102  | 4    | 2                                                                                   | 60   |
| Future Vol, veh/h        | 89                                                                                | 1138                                                                              | 38                                                                                | 24                                                                                | 584                                                                               | 3    | 22   | 6                                                                                 | 102  | 4    | 2                                                                                   | 60   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87   | 87   | 87                                                                                | 87   | 87   | 87                                                                                  | 87   |
| Heavy Vehicles, %        | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Mvmt Flow                | 102                                                                               | 1308                                                                              | 44                                                                                | 28                                                                                | 671                                                                               | 3    | 25   | 7                                                                                 | 117  | 5    | 2                                                                                   | 69   |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |     |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|-----|
| Conflicting Flow All | 674    | 0 | 0 | 1352   | 0 | 0 | 2276   | 2242 | 654 | 1591   | 2285 | 673 |
| Stage 1              | -      | - | - | -      | - | - | 1512   | 1512 | -   | 729    | 729  | -   |
| Stage 2              | -      | - | - | -      | - | - | 764    | 730  | -   | 862    | 1556 | -   |
| Critical Hdwy        | 4.115  | - | - | 4.1    | - | - | 7.3    | 6.5  | 6.9 | 7.3    | 6.5  | 6.2 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.1    | 5.5  | -   |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.1    | 5.5  | -   | 6.5    | 5.5  | -   |
| Follow-up Hdwy       | 2.2095 | - | - | 2.2    | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3 |
| Pot Cap-1 Maneuver   | 921    | - | - | 516    | - | - | ~ 25   | 43   | 414 | 80     | 40   | 459 |
| Stage 1              | -      | - | - | -      | - | - | 128    | 184  | -   | 417    | 431  | -   |
| Stage 2              | -      | - | - | -      | - | - | 399    | 431  | -   | 320    | 176  | -   |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -   | -      | -    | -   |
| Mov Cap-1 Maneuver   | 921    | - | - | 516    | - | - | ~ 18   | 36   | 414 | 43     | 34   | 459 |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | ~ 18   | 36   | -   | 43     | 34   | -   |
| Stage 1              | -      | - | - | -      | - | - | 114    | 164  | -   | 371    | 408  | -   |
| Stage 2              | -      | - | - | -      | - | - | 319    | 408  | -   | 195    | 156  | -   |

| Approach             | EB  |  |  | WB  |  |  | NB       |  |  | SB   |  |  |
|----------------------|-----|--|--|-----|--|--|----------|--|--|------|--|--|
| HCM Control Delay, s | 0.7 |  |  | 0.5 |  |  | \$ 532.3 |  |  | 27.6 |  |  |
| HCM LOS              |     |  |  |     |  |  | F        |  |  | D    |  |  |

| Minor Lane/Major Mvmt | NBLn1    | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|----------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 79       | 921   | -   | -   | 516   | -   | -   | 234   |
| HCM Lane V/C Ratio    | 1.891    | 0.111 | -   | -   | 0.053 | -   | -   | 0.324 |
| HCM Control Delay (s) | \$ 532.3 | 9.4   | -   | -   | 12.4  | -   | -   | 27.6  |
| HCM Lane LOS          | F        | A     | -   | -   | B     | -   | -   | D     |
| HCM 95th %tile Q(veh) | 13.1     | 0.4   | -   | -   | 0.2   | -   | -   | 1.3   |

| Notes                      |                        |                            |                                |
|----------------------------|------------------------|----------------------------|--------------------------------|
| ~: Volume exceeds capacity | \$: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |



| Intersection               |                                                                                   |                        |       |                                                                                   |                                                                                   |                                |
|----------------------------|-----------------------------------------------------------------------------------|------------------------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------|
| Int Delay, s/veh           | 478.7                                                                             |                        |       |                                                                                   |                                                                                   |                                |
| Movement                   | EBT                                                                               | EBR                    | WBL   | WBT                                                                               | NBL                                                                               | NBR                            |
| Lane Configurations        |  |                        |       |  |  |                                |
| Traffic Vol, veh/h         | 1035                                                                              | 236                    | 208   | 466                                                                               | 141                                                                               | 124                            |
| Future Vol, veh/h          | 1035                                                                              | 236                    | 208   | 466                                                                               | 141                                                                               | 124                            |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                      | 0     | 0                                                                                 | 0                                                                                 | 0                              |
| Sign Control               | Free                                                                              | Free                   | Free  | Free                                                                              | Stop                                                                              | Stop                           |
| RT Channelized             | -                                                                                 | None                   | -     | None                                                                              | -                                                                                 | None                           |
| Storage Length             | -                                                                                 | -                      | -     | -                                                                                 | 0                                                                                 | -                              |
| Veh in Median Storage, #   | 0                                                                                 | -                      | -     | 0                                                                                 | 0                                                                                 | -                              |
| Grade, %                   | 0                                                                                 | -                      | -     | 0                                                                                 | 0                                                                                 | -                              |
| Peak Hour Factor           | 92                                                                                | 92                     | 92    | 92                                                                                | 92                                                                                | 92                             |
| Heavy Vehicles, %          | 2                                                                                 | 2                      | 2     | 2                                                                                 | 2                                                                                 | 2                              |
| Mvmt Flow                  | 1125                                                                              | 257                    | 226   | 507                                                                               | 153                                                                               | 135                            |
|                            |                                                                                   |                        |       |                                                                                   |                                                                                   |                                |
| Major/Minor                | Major1                                                                            | Major2                 |       | Minor1                                                                            |                                                                                   |                                |
| Conflicting Flow All       | 0                                                                                 | 0                      | 1382  | 0                                                                                 | 2213                                                                              | 1254                           |
| Stage 1                    | -                                                                                 | -                      | -     | -                                                                                 | 1254                                                                              | -                              |
| Stage 2                    | -                                                                                 | -                      | -     | -                                                                                 | 959                                                                               | -                              |
| Critical Hdwy              | -                                                                                 | -                      | 4.12  | -                                                                                 | 6.42                                                                              | 6.22                           |
| Critical Hdwy Stg 1        | -                                                                                 | -                      | -     | -                                                                                 | 5.42                                                                              | -                              |
| Critical Hdwy Stg 2        | -                                                                                 | -                      | -     | -                                                                                 | 5.42                                                                              | -                              |
| Follow-up Hdwy             | -                                                                                 | -                      | 2.218 | -                                                                                 | 3.518                                                                             | 3.318                          |
| Pot Cap-1 Maneuver         | -                                                                                 | -                      | 496   | -                                                                                 | ~ 48                                                                              | 210                            |
| Stage 1                    | -                                                                                 | -                      | -     | -                                                                                 | 269                                                                               | -                              |
| Stage 2                    | -                                                                                 | -                      | -     | -                                                                                 | 372                                                                               | -                              |
| Platoon blocked, %         | -                                                                                 | -                      | -     | -                                                                                 | -                                                                                 | -                              |
| Mov Cap-1 Maneuver         | -                                                                                 | -                      | 496   | -                                                                                 | ~ 18                                                                              | 210                            |
| Mov Cap-2 Maneuver         | -                                                                                 | -                      | -     | -                                                                                 | ~ 18                                                                              | -                              |
| Stage 1                    | -                                                                                 | -                      | -     | -                                                                                 | 269                                                                               | -                              |
| Stage 2                    | -                                                                                 | -                      | -     | -                                                                                 | ~ 136                                                                             | -                              |
|                            |                                                                                   |                        |       |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |       |                                                                                   |                                                                                   |                                |
| Approach                   | EB                                                                                | WB                     |       | NB                                                                                |                                                                                   |                                |
| HCM Control Delay, s       | 0                                                                                 | 5.6                    |       | \$ 3978.3                                                                         |                                                                                   |                                |
| HCM LOS                    | F                                                                                 |                        |       |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |       |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |       |                                                                                   |                                                                                   |                                |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBT                    | EBR   | WBL                                                                               | WBT                                                                               |                                |
| Capacity (veh/h)           | 31                                                                                | -                      | -     | 496                                                                               | -                                                                                 |                                |
| HCM Lane V/C Ratio         | 9.292                                                                             | -                      | -     | 0.456                                                                             | -                                                                                 |                                |
| HCM Control Delay (s)      | \$ 3978.3                                                                         | -                      | -     | 18.2                                                                              | 0                                                                                 |                                |
| HCM Lane LOS               | F                                                                                 | -                      | -     | C                                                                                 | A                                                                                 |                                |
| HCM 95th %tile Q(veh)      | 35.2                                                                              | -                      | -     | 2.3                                                                               | -                                                                                 |                                |
| Notes                      |                                                                                   |                        |       |                                                                                   |                                                                                   |                                |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s |       | +: Computation Not Defined                                                        |                                                                                   | *: All major volume in platoon |

| Intersection             |                                                                                   |      |        |                                                                                   |        |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.7                                                                               |      |        |                                                                                   |        |                                                                                   |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL    | NBR                                                                               |
| Lane Configurations      |  |      |        |  |        |  |
| Traffic Vol, veh/h       | 779                                                                               | 11   | 1      | 1043                                                                              | 16     | 3                                                                                 |
| Future Vol, veh/h        | 779                                                                               | 11   | 1      | 1043                                                                              | 16     | 3                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0      | 0                                                                                 |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop   | Stop                                                                              |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -      | None                                                                              |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0      | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0      | -                                                                                 |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0      | -                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92     | 92                                                                                |
| Heavy Vehicles, %        | 7                                                                                 | 11   | 0      | 2                                                                                 | 0      | 33                                                                                |
| Mvmt Flow                | 847                                                                               | 12   | 1      | 1134                                                                              | 17     | 3                                                                                 |
|                          |                                                                                   |      |        |                                                                                   |        |                                                                                   |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1 |                                                                                   |
| Conflicting Flow All     | 0                                                                                 | 0    | 859    | 0                                                                                 | 1989   | 853                                                                               |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 853    | -                                                                                 |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1136   | -                                                                                 |
| Critical Hdwy            | -                                                                                 | -    | 4.1    | -                                                                                 | 6.4    | 6.53                                                                              |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.4    | -                                                                                 |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.4    | -                                                                                 |
| Follow-up Hdwy           | -                                                                                 | -    | 2.2    | -                                                                                 | 3.5    | 3.597                                                                             |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 791    | -                                                                                 | 68     | 317                                                                               |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 421    | -                                                                                 |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 309    | -                                                                                 |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |        |                                                                                   |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 791    | -                                                                                 | 68     | 317                                                                               |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 68     | -                                                                                 |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 421    | -                                                                                 |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 308    | -                                                                                 |
|                          |                                                                                   |      |        |                                                                                   |        |                                                                                   |
|                          |                                                                                   |      |        |                                                                                   |        |                                                                                   |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB     |                                                                                   |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 67     |                                                                                   |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | F      |                                                                                   |
|                          |                                                                                   |      |        |                                                                                   |        |                                                                                   |
|                          |                                                                                   |      |        |                                                                                   |        |                                                                                   |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT    |                                                                                   |
| Capacity (veh/h)         | 78                                                                                | -    | -      | 791                                                                               | -      |                                                                                   |
| HCM Lane V/C Ratio       | 0.265                                                                             | -    | -      | 0.001                                                                             | -      |                                                                                   |
| HCM Control Delay (s)    | 67                                                                                | -    | -      | 9.6                                                                               | 0      |                                                                                   |
| HCM Lane LOS             | F                                                                                 | -    | -      | A                                                                                 | A      |                                                                                   |
| HCM 95th %tile Q(veh)    | 1                                                                                 | -    | -      | 0                                                                                 | -      |                                                                                   |

| Intersection               |           |                        |        |                            |           |                                |
|----------------------------|-----------|------------------------|--------|----------------------------|-----------|--------------------------------|
| Int Delay, s/veh           | 111       |                        |        |                            |           |                                |
| Movement                   | EBT       | EBR                    | WBL    | WBT                        | NBL       | NBR                            |
| Lane Configurations        | ↑         | ↗                      | ↖      | ↑                          | ↘         |                                |
| Traffic Vol, veh/h         | 567       | 83                     | 94     | 1150                       | 97        | 80                             |
| Future Vol, veh/h          | 567       | 83                     | 94     | 1150                       | 97        | 80                             |
| Conflicting Peds, #/hr     | 0         | 0                      | 0      | 0                          | 0         | 0                              |
| Sign Control               | Free      | Free                   | Free   | Free                       | Stop      | Stop                           |
| RT Channelized             | -         | None                   | -      | None                       | -         | None                           |
| Storage Length             | -         | 200                    | 150    | -                          | 0         | -                              |
| Veh in Median Storage, #   | 0         | -                      | -      | 0                          | 0         | -                              |
| Grade, %                   | 0         | -                      | -      | 0                          | 0         | -                              |
| Peak Hour Factor           | 83        | 83                     | 83     | 83                         | 83        | 83                             |
| Heavy Vehicles, %          | 4         | 3                      | 3      | 2                          | 9         | 10                             |
| Mvmt Flow                  | 683       | 100                    | 113    | 1386                       | 117       | 96                             |
|                            |           |                        |        |                            |           |                                |
| Major/Minor                | Major1    |                        | Major2 |                            | Minor1    |                                |
| Conflicting Flow All       | 0         | 0                      | 783    | 0                          | 2295      | 683                            |
| Stage 1                    | -         | -                      | -      | -                          | 683       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 1612      | -                              |
| Critical Hdwy              | -         | -                      | 4.13   | -                          | 6.49      | 6.3                            |
| Critical Hdwy Stg 1        | -         | -                      | -      | -                          | 5.49      | -                              |
| Critical Hdwy Stg 2        | -         | -                      | -      | -                          | 5.49      | -                              |
| Follow-up Hdwy             | -         | -                      | 2.227  | -                          | 3.581     | 3.39                           |
| Pot Cap-1 Maneuver         | -         | -                      | 831    | -                          | ~ 41      | 436                            |
| Stage 1                    | -         | -                      | -      | -                          | 489       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 173       | -                              |
| Platoon blocked, %         | -         | -                      |        | -                          |           |                                |
| Mov Cap-1 Maneuver         | -         | -                      | 831    | -                          | ~ 35      | 436                            |
| Mov Cap-2 Maneuver         | -         | -                      | -      | -                          | ~ 35      | -                              |
| Stage 1                    | -         | -                      | -      | -                          | 489       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 149       | -                              |
|                            |           |                        |        |                            |           |                                |
| Approach                   | EB        |                        | WB     |                            | NB        |                                |
| HCM Control Delay, s       | 0         |                        | 0.8    |                            | \$ 1292.6 |                                |
| HCM LOS                    | F         |                        |        |                            |           |                                |
|                            |           |                        |        |                            |           |                                |
| Minor Lane/Major Mvmt      | NBLn1     | EBT                    | EBR    | WBL                        | WBT       |                                |
| Capacity (veh/h)           | 60        | -                      | -      | 831                        | -         |                                |
| HCM Lane V/C Ratio         | 3.554     | -                      | -      | 0.136                      | -         |                                |
| HCM Control Delay (s)      | \$ 1292.6 | -                      | -      | 10                         | -         |                                |
| HCM Lane LOS               | F         | -                      | -      | B                          | -         |                                |
| HCM 95th %tile Q(veh)      | 22.7      | -                      | -      | 0.5                        | -         |                                |
| Notes                      |           |                        |        |                            |           |                                |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |        | +: Computation Not Defined |           | *: All major volume in platoon |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|------|--------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh         | 12.3                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |                                                                                     |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL    | NBT                                                                               | NBR  | SBL    | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations      |  |  |  |  |  |      |        |  |      |        |  |  |
| Traffic Vol, veh/h       | 35                                                                                | 599                                                                               | 3                                                                                 | 32                                                                                | 1208                                                                              | 8    | 3      | 0                                                                                 | 37   | 15     | 1                                                                                   | 116                                                                                 |
| Future Vol, veh/h        | 35                                                                                | 599                                                                               | 3                                                                                 | 32                                                                                | 1208                                                                              | 8    | 3      | 0                                                                                 | 37   | 15     | 1                                                                                   | 116                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0      | 0                                                                                 | 0    | 0      | 0                                                                                   | 0                                                                                   |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop   | Stop                                                                              | Stop | Stop   | Stop                                                                                | Stop                                                                                |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -      | -                                                                                 | None | -      | -                                                                                   | None                                                                                |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -      | -                                                                                 | -    | -      | -                                                                                   | -                                                                                   |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -    | -      | 0                                                                                   | -                                                                                   |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -    | -      | 0                                                                                   | -                                                                                   |
| Peak Hour Factor         | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90   | 90     | 90                                                                                | 90   | 90     | 90                                                                                  | 90                                                                                  |
| Heavy Vehicles, %        | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0    | 0      | 0                                                                                 | 0    | 0      | 0                                                                                   | 0                                                                                   |
| Mvmt Flow                | 39                                                                                | 666                                                                               | 3                                                                                 | 36                                                                                | 1342                                                                              | 9    | 3      | 0                                                                                 | 41   | 17     | 1                                                                                   | 129                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |                                                                                     |
| Major/Minor              | Major1                                                                            |                                                                                   |                                                                                   | Major2                                                                            |                                                                                   |      | Minor1 |                                                                                   |      | Minor2 |                                                                                     |                                                                                     |
| Conflicting Flow All     | 1351                                                                              | 0                                                                                 | 0                                                                                 | 669                                                                               | 0                                                                                 | 0    | 2228   | 2167                                                                              | 333  | 1830   | 2166                                                                                | 1347                                                                                |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 744    | 744                                                                               | -    | 1419   | 1419                                                                                | -                                                                                   |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 1484   | 1423                                                                              | -    | 411    | 747                                                                                 | -                                                                                   |
| Critical Hdwy            | 4.1                                                                               | -                                                                                 | -                                                                                 | 4.175                                                                             | -                                                                                 | -    | 7.3    | 6.5                                                                               | 6.9  | 7.3    | 6.5                                                                                 | 6.2                                                                                 |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.5    | 5.5                                                                               | -    | 6.1    | 5.5                                                                                 | -                                                                                   |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.1    | 5.5                                                                               | -    | 6.5    | 5.5                                                                                 | -                                                                                   |
| Follow-up Hdwy           | 2.2                                                                               | -                                                                                 | -                                                                                 | 2.2475                                                                            | -                                                                                 | -    | 3.5    | 4                                                                                 | 3.3  | 3.5    | 4                                                                                   | 3.3                                                                                 |
| Pot Cap-1 Maneuver       | 516                                                                               | -                                                                                 | -                                                                                 | 902                                                                               | -                                                                                 | -    | 27     | 48                                                                                | 669  | 54     | 48                                                                                  | 187                                                                                 |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 377    | 424                                                                               | -    | 171    | 205                                                                                 | -                                                                                   |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 157    | 204                                                                               | -    | 594    | 423                                                                                 | -                                                                                   |
| Platoon blocked, %       |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 | -    |        |                                                                                   |      |        |                                                                                     |                                                                                     |
| Mov Cap-1 Maneuver       | 516                                                                               | -                                                                                 | -                                                                                 | 902                                                                               | -                                                                                 | -    | 8      | 43                                                                                | 669  | 46     | 43                                                                                  | 187                                                                                 |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 8      | 43                                                                                | -    | 46     | 43                                                                                  | -                                                                                   |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 348    | 392                                                                               | -    | 158    | 197                                                                                 | -                                                                                   |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 47     | 196                                                                               | -    | 515    | 391                                                                                 | -                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |                                                                                     |
| Approach                 | EB                                                                                |                                                                                   |                                                                                   | WB                                                                                |                                                                                   |      | NB     |                                                                                   |      | SB     |                                                                                     |                                                                                     |
| HCM Control Delay, s     | 0.7                                                                               |                                                                                   |                                                                                   | 0.2                                                                               |                                                                                   |      | 75     |                                                                                   |      | 163.8  |                                                                                     |                                                                                     |
| HCM LOS                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      | F      |                                                                                   |      | F      |                                                                                     |                                                                                     |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |                                                                                     |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT  | WBR    | SBLn1                                                                             |      |        |                                                                                     |                                                                                     |
| Capacity (veh/h)         | 93                                                                                | 516                                                                               | -                                                                                 | -                                                                                 | 902                                                                               | -    | -      | 136                                                                               |      |        |                                                                                     |                                                                                     |
| HCM Lane V/C Ratio       | 0.478                                                                             | 0.075                                                                             | -                                                                                 | -                                                                                 | 0.039                                                                             | -    | -      | 1.078                                                                             |      |        |                                                                                     |                                                                                     |
| HCM Control Delay (s)    | 75                                                                                | 12.5                                                                              | -                                                                                 | -                                                                                 | 9.2                                                                               | -    | -      | 163.8                                                                             |      |        |                                                                                     |                                                                                     |
| HCM Lane LOS             | F                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 | A                                                                                 | -    | -      | F                                                                                 |      |        |                                                                                     |                                                                                     |
| HCM 95th %tile Q(veh)    | 2.1                                                                               | 0.2                                                                               | -                                                                                 | -                                                                                 | 0.1                                                                               | -    | -      | 8.1                                                                               |      |        |                                                                                     |                                                                                     |

HCM 6th TWSC  
4: Driveway #1 & Old Cornelia Highway

2030 - Phase 2 Build Conditions  
AM Peak Hour

| Intersection               |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
|----------------------------|-----------------------------------------------------------------------------------|------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------|
| Int Delay, s/veh           | 468.1                                                                             |                        |        |                                                                                   |                                                                                   |                                |
| Movement                   | EBT                                                                               | EBR                    | WBL    | WBT                                                                               | NBL                                                                               | NBR                            |
| Lane Configurations        |  |                        |        |  |  |                                |
| Traffic Vol, veh/h         | 557                                                                               | 90                     | 80     | 979                                                                               | 265                                                                               | 233                            |
| Future Vol, veh/h          | 557                                                                               | 90                     | 80     | 979                                                                               | 265                                                                               | 233                            |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                      | 0      | 0                                                                                 | 0                                                                                 | 0                              |
| Sign Control               | Free                                                                              | Free                   | Free   | Free                                                                              | Stop                                                                              | Stop                           |
| RT Channelized             | -                                                                                 | None                   | -      | None                                                                              | -                                                                                 | None                           |
| Storage Length             | -                                                                                 | -                      | -      | -                                                                                 | 0                                                                                 | -                              |
| Veh in Median Storage, #   | 0                                                                                 | -                      | -      | 0                                                                                 | 0                                                                                 | -                              |
| Grade, %                   | 0                                                                                 | -                      | -      | 0                                                                                 | 0                                                                                 | -                              |
| Peak Hour Factor           | 92                                                                                | 92                     | 92     | 92                                                                                | 92                                                                                | 92                             |
| Heavy Vehicles, %          | 2                                                                                 | 2                      | 2      | 2                                                                                 | 2                                                                                 | 2                              |
| Mvmt Flow                  | 605                                                                               | 98                     | 87     | 1064                                                                              | 288                                                                               | 253                            |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| Major/Minor                | Major1                                                                            | Major2                 | Minor1 |                                                                                   |                                                                                   |                                |
| Conflicting Flow All       | 0                                                                                 | 0                      | 703    | 0                                                                                 | 1892                                                                              | 654                            |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 654                                                                               | -                              |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | 1238                                                                              | -                              |
| Critical Hdwy              | -                                                                                 | -                      | 4.12   | -                                                                                 | 6.42                                                                              | 6.22                           |
| Critical Hdwy Stg 1        | -                                                                                 | -                      | -      | -                                                                                 | 5.42                                                                              | -                              |
| Critical Hdwy Stg 2        | -                                                                                 | -                      | -      | -                                                                                 | 5.42                                                                              | -                              |
| Follow-up Hdwy             | -                                                                                 | -                      | 2.218  | -                                                                                 | 3.518                                                                             | 3.318                          |
| Pot Cap-1 Maneuver         | -                                                                                 | -                      | 895    | -                                                                                 | ~ 77                                                                              | 467                            |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 517                                                                               | -                              |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | ~ 274                                                                             | -                              |
| Platoon blocked, %         | -                                                                                 | -                      | -      | -                                                                                 | -                                                                                 | -                              |
| Mov Cap-1 Maneuver         | -                                                                                 | -                      | 895    | -                                                                                 | ~ 59                                                                              | 467                            |
| Mov Cap-2 Maneuver         | -                                                                                 | -                      | -      | -                                                                                 | ~ 59                                                                              | -                              |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 517                                                                               | -                              |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | ~ 209                                                                             | -                              |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| Approach                   | EB                                                                                | WB                     |        | NB                                                                                |                                                                                   |                                |
| HCM Control Delay, s       | 0                                                                                 | 0.7                    |        | \$ 2070.1                                                                         |                                                                                   |                                |
| HCM LOS                    | F                                                                                 |                        |        |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBT                    | EBR    | WBL                                                                               | WBT                                                                               |                                |
| Capacity (veh/h)           | 100                                                                               | -                      | -      | 895                                                                               | -                                                                                 |                                |
| HCM Lane V/C Ratio         | 5.413                                                                             | -                      | -      | 0.097                                                                             | -                                                                                 |                                |
| HCM Control Delay (s)      | \$ 2070.1                                                                         | -                      | -      | 9.5                                                                               | 0                                                                                 |                                |
| HCM Lane LOS               | F                                                                                 | -                      | -      | A                                                                                 | A                                                                                 |                                |
| HCM 95th %tile Q(veh)      | 58.6                                                                              | -                      | -      | 0.3                                                                               | -                                                                                 |                                |
| Notes                      |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s |        | +: Computation Not Defined                                                        |                                                                                   | *: All major volume in platoon |



| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.5                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 1251                                                                              | 16   | 0    | 745                                                                               | 9                                                                                 | 0    |
| Future Vol, veh/h        | 1251                                                                              | 16   | 0    | 745                                                                               | 9                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                | 90   |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2    | 1                                                                                 | 14                                                                                | 2    |
| Mvmt Flow                | 1390                                                                              | 18   | 0    | 828                                                                               | 10                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1408   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 485    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 485    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB    |
|----------------------|----|----|-------|
| HCM Control Delay, s | 0  | 0  | 109.4 |
| HCM LOS              |    |    | F     |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 44    | -   | -   | 485 | -   |
| HCM Lane V/C Ratio    | 0.227 | -   | -   | -   | -   |
| HCM Control Delay (s) | 109.4 | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.8   | -   | -   | 0   | -   |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 11.9   |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑      | ↗    | ↘      | ↑     | ↘↗     |      |
| Traffic Vol, veh/h       | 1339   | 27   | 33     | 644   | 33     | 62   |
| Future Vol, veh/h        | 1339   | 27   | 33     | 644   | 33     | 62   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1455   | 29   | 36     | 700   | 36     | 67   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1484   | 0     | 2227   | 1455 |
| Stage 1                  | -      | -    | -      | -     | 1455   | -    |
| Stage 2                  | -      | -    | -      | -     | 772    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.4    | 6.2  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.4    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.4    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 459    | -     | 48     | 161  |
| Stage 1                  | -      | -    | -      | -     | 217    | -    |
| Stage 2                  | -      | -    | -      | -     | 459    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 459    | -     | 44     | 161  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 44     | -    |
| Stage 1                  | -      | -    | -      | -     | 217    | -    |
| Stage 2                  | -      | -    | -      | -     | 423    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.7    |       | 261.8  |      |
| HCM LOS                  |        |      |        |       | F      |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 84     | -    | -      | 459   | -      |      |
| HCM Lane V/C Ratio       | 1.229  | -    | -      | 0.078 | -      |      |
| HCM Control Delay (s)    | 261.8  | -    | -      | 13.5  | -      |      |
| HCM Lane LOS             | F      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 7.5    | -    | -      | 0.3   | -      |      |

HCM 6th TWSC  
3: Shell Gas Station/Oconee Circle & Old Cornelia Highway

2030 - Phase 2 Build Conditions  
PM Peak Hour

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 73.5 |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 96   | 1250 | 41   | 27   | 647  | 3    | 24   | 7    | 112  | 5    | 2    | 65   |
| Future Vol, veh/h        | 96   | 1250 | 41   | 27   | 647  | 3    | 24   | 7    | 112  | 5    | 2    | 65   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | 75   | -    | 115  | 50   | -    | -    | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 87   | 87   | 87   | 87   | 87   | 87   | 87   | 87   | 87   | 87   | 87   | 87   |
| Heavy Vehicles, %        | 1    | 1    | 0    | 0    | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mvmt Flow                | 110  | 1437 | 47   | 31   | 744  | 3    | 28   | 8    | 129  | 6    | 2    | 75   |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |     |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|-----|
| Conflicting Flow All | 747    | 0 | 0 | 1484   | 0 | 0 | 2503   | 2466 | 719 | 1751   | 2512 | 746 |
| Stage 1              | -      | - | - | -      | - | - | 1657   | 1657 | -   | 808    | 808  | -   |
| Stage 2              | -      | - | - | -      | - | - | 846    | 809  | -   | 943    | 1704 | -   |
| Critical Hdwy        | 4.115  | - | - | 4.1    | - | - | 7.3    | 6.5  | 6.9 | 7.3    | 6.5  | 6.2 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.1    | 5.5  | -   |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.1    | 5.5  | -   | 6.5    | 5.5  | -   |
| Follow-up Hdwy       | 2.2095 | - | - | 2.2    | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3 |
| Pot Cap-1 Maneuver   | 865    | - | - | 459    | - | - | ~ 17   | 31   | 375 | 61     | 29   | 417 |
| Stage 1              | -      | - | - | -      | - | - | 104    | 157  | -   | 378    | 397  | -   |
| Stage 2              | -      | - | - | -      | - | - | 360    | 396  | -   | 286    | 149  | -   |
| Platoon blocked, %   |        | - | - |        | - | - |        |      |     |        |      |     |
| Mov Cap-1 Maneuver   | 865    | - | - | 459    | - | - | ~ 11   | 25   | 375 | 26     | 24   | 417 |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | ~ 11   | 25   | -   | 26     | 24   | -   |
| Stage 1              | -      | - | - | -      | - | - | 91     | 137  | -   | 330    | 370  | -   |
| Stage 2              | -      | - | - | -      | - | - | 274    | 369  | -   | 154    | 130  | -   |

| Approach             | EB  | WB  | NB        | SB   |
|----------------------|-----|-----|-----------|------|
| HCM Control Delay, s | 0.7 | 0.5 | \$ 1139.1 | 46.1 |
| HCM LOS              |     |     | F         | E    |

| Minor Lane/Major Mvmt | NBLn1     | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-----------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 52        | 865   | -   | -   | 459   | -   | -   | 167   |
| HCM Lane V/C Ratio    | 3.161     | 0.128 | -   | -   | 0.068 | -   | -   | 0.496 |
| HCM Control Delay (s) | \$ 1139.1 | 9.8   | -   | -   | 13.4  | -   | -   | 46.1  |
| HCM Lane LOS          | F         | A     | -   | -   | B     | -   | -   | E     |
| HCM 95th %tile Q(veh) | 17.6      | 0.4   | -   | -   | 0.2   | -   | -   | 2.4   |

| Notes                      |                        |                            |                                |
|----------------------------|------------------------|----------------------------|--------------------------------|
| ~: Volume exceeds capacity | \$: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |

HCM 6th TWSC  
4: Driveway #1 & Old Cornelia Highway

2030 - Phase 2 Build Conditions  
PM Peak Hour

| Intersection               |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
|----------------------------|-----------------------------------------------------------------------------------|------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------|
| Int Delay, s/veh           | 3675                                                                              |                        |        |                                                                                   |                                                                                   |                                |
| Movement                   | EBT                                                                               | EBR                    | WBL    | WBT                                                                               | NBL                                                                               | NBR                            |
| Lane Configurations        |  |                        |        |  |  |                                |
| Traffic Vol, veh/h         | 1113                                                                              | 288                    | 253    | 501                                                                               | 176                                                                               | 154                            |
| Future Vol, veh/h          | 1113                                                                              | 288                    | 253    | 501                                                                               | 176                                                                               | 154                            |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                      | 0      | 0                                                                                 | 0                                                                                 | 0                              |
| Sign Control               | Free                                                                              | Free                   | Free   | Free                                                                              | Stop                                                                              | Stop                           |
| RT Channelized             | -                                                                                 | None                   | -      | None                                                                              | -                                                                                 | None                           |
| Storage Length             | -                                                                                 | -                      | -      | -                                                                                 | 0                                                                                 | -                              |
| Veh in Median Storage, #   | 0                                                                                 | -                      | -      | 0                                                                                 | 0                                                                                 | -                              |
| Grade, %                   | 0                                                                                 | -                      | -      | 0                                                                                 | 0                                                                                 | -                              |
| Peak Hour Factor           | 92                                                                                | 92                     | 92     | 92                                                                                | 92                                                                                | 92                             |
| Heavy Vehicles, %          | 2                                                                                 | 2                      | 2      | 2                                                                                 | 2                                                                                 | 2                              |
| Mvmt Flow                  | 1210                                                                              | 313                    | 275    | 545                                                                               | 191                                                                               | 167                            |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| Major/Minor                | Major1                                                                            | Major2                 | Minor1 |                                                                                   |                                                                                   |                                |
| Conflicting Flow All       | 0                                                                                 | 0                      | 1523   | 0                                                                                 | 2462                                                                              | 1367                           |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 1367                                                                              | -                              |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | 1095                                                                              | -                              |
| Critical Hdwy              | -                                                                                 | -                      | 4.12   | -                                                                                 | 6.42                                                                              | 6.22                           |
| Critical Hdwy Stg 1        | -                                                                                 | -                      | -      | -                                                                                 | 5.42                                                                              | -                              |
| Critical Hdwy Stg 2        | -                                                                                 | -                      | -      | -                                                                                 | 5.42                                                                              | -                              |
| Follow-up Hdwy             | -                                                                                 | -                      | 2.218  | -                                                                                 | 3.518                                                                             | 3.318                          |
| Pot Cap-1 Maneuver         | -                                                                                 | -                      | 438    | -                                                                                 | ~ 34                                                                              | 180                            |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 237                                                                               | -                              |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | 321                                                                               | -                              |
| Platoon blocked, %         | -                                                                                 | -                      | -      | -                                                                                 | -                                                                                 | -                              |
| Mov Cap-1 Maneuver         | -                                                                                 | -                      | 438    | -                                                                                 | ~ 3                                                                               | 180                            |
| Mov Cap-2 Maneuver         | -                                                                                 | -                      | -      | -                                                                                 | ~ 3                                                                               | -                              |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 237                                                                               | -                              |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | ~ 32                                                                              | -                              |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| Approach                   | EB                                                                                | WB                     |        | NB                                                                                |                                                                                   |                                |
| HCM Control Delay, s       | 0                                                                                 | 8.8                    |        | \$ 27653.9                                                                        |                                                                                   |                                |
| HCM LOS                    | F                                                                                 |                        |        |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBT                    | EBR    | WBL                                                                               | WBT                                                                               |                                |
| Capacity (veh/h)           | 6                                                                                 | -                      | -      | 438                                                                               | -                                                                                 |                                |
| HCM Lane V/C Ratio         | 59.783                                                                            | -                      | -      | 0.628                                                                             | -                                                                                 |                                |
| HCM Control Delay (s)      | \$ 27653.9                                                                        | -                      | -      | 26.1                                                                              | 0                                                                                 |                                |
| HCM Lane LOS               | F                                                                                 | -                      | -      | D                                                                                 | A                                                                                 |                                |
| HCM 95th %tile Q(veh)      | 47                                                                                | -                      | -      | 4.2                                                                               | -                                                                                 |                                |
| Notes                      |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s |        | +: Computation Not Defined                                                        |                                                                                   | *: All major volume in platoon |

| Intersection             |                                                                                   |        |      |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|--------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 1                                                                                 |        |      |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR    | WBL  | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |        |      |  |  |       |
| Traffic Vol, veh/h       | 879                                                                               | 12     | 1    | 1137                                                                              | 17                                                                                | 4     |
| Future Vol, veh/h        | 879                                                                               | 12     | 1    | 1137                                                                              | 17                                                                                | 4     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0      | 0    | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free   | Free | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None   | -    | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -      | -    | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -      | -    | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -      | -    | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92     | 92   | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 7                                                                                 | 11     | 0    | 2                                                                                 | 0                                                                                 | 33    |
| Mvmt Flow                | 955                                                                               | 13     | 1    | 1236                                                                              | 18                                                                                | 4     |
|                          |                                                                                   |        |      |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            | Major2 |      | Minor1                                                                            |                                                                                   |       |
| Conflicting Flow All     | 0                                                                                 | 0      | 968  | 0                                                                                 | 2200                                                                              | 962   |
| Stage 1                  | -                                                                                 | -      | -    | -                                                                                 | 962                                                                               | -     |
| Stage 2                  | -                                                                                 | -      | -    | -                                                                                 | 1238                                                                              | -     |
| Critical Hdwy            | -                                                                                 | -      | 4.1  | -                                                                                 | 6.4                                                                               | 6.53  |
| Critical Hdwy Stg 1      | -                                                                                 | -      | -    | -                                                                                 | 5.4                                                                               | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -      | -    | -                                                                                 | 5.4                                                                               | -     |
| Follow-up Hdwy           | -                                                                                 | -      | 2.2  | -                                                                                 | 3.5                                                                               | 3.597 |
| Pot Cap-1 Maneuver       | -                                                                                 | -      | 720  | -                                                                                 | 50                                                                                | 272   |
| Stage 1                  | -                                                                                 | -      | -    | -                                                                                 | 374                                                                               | -     |
| Stage 2                  | -                                                                                 | -      | -    | -                                                                                 | 276                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -      |      | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -      | 720  | -                                                                                 | 50                                                                                | 272   |
| Mov Cap-2 Maneuver       | -                                                                                 | -      | -    | -                                                                                 | 50                                                                                | -     |
| Stage 1                  | -                                                                                 | -      | -    | -                                                                                 | 374                                                                               | -     |
| Stage 2                  | -                                                                                 | -      | -    | -                                                                                 | 275                                                                               | -     |
|                          |                                                                                   |        |      |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |      |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                | WB     |      | NB                                                                                |                                                                                   |       |
| HCM Control Delay, s     | 0                                                                                 | 0      |      | 100.3                                                                             |                                                                                   |       |
| HCM LOS                  | F                                                                                 |        |      |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |      |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |      |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT    | EBR  | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 59                                                                                | -      | -    | 720                                                                               | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.387                                                                             | -      | -    | 0.002                                                                             | -                                                                                 |       |
| HCM Control Delay (s)    | 100.3                                                                             | -      | -    | 10                                                                                | 0                                                                                 |       |
| HCM Lane LOS             | F                                                                                 | -      | -    | B                                                                                 | A                                                                                 |       |
| HCM 95th %tile Q(veh)    | 1.4                                                                               | -      | -    | 0                                                                                 | -                                                                                 |       |



| Intersection               |           |                        |        |                            |           |                                |
|----------------------------|-----------|------------------------|--------|----------------------------|-----------|--------------------------------|
| Int Delay, s/veh           | 195.9     |                        |        |                            |           |                                |
| Movement                   | EBT       | EBR                    | WBL    | WBT                        | NBL       | NBR                            |
| Lane Configurations        | ↑         | ↗                      | ↖      | ↑                          | ↘         |                                |
| Traffic Vol, veh/h         | 623       | 90                     | 109    | 1277                       | 105       | 89                             |
| Future Vol, veh/h          | 623       | 90                     | 109    | 1277                       | 105       | 89                             |
| Conflicting Peds, #/hr     | 0         | 0                      | 0      | 0                          | 0         | 0                              |
| Sign Control               | Free      | Free                   | Free   | Free                       | Stop      | Stop                           |
| RT Channelized             | -         | None                   | -      | None                       | -         | None                           |
| Storage Length             | -         | 200                    | 150    | -                          | 0         | -                              |
| Veh in Median Storage, #   | 0         | -                      | -      | 0                          | 0         | -                              |
| Grade, %                   | 0         | -                      | -      | 0                          | 0         | -                              |
| Peak Hour Factor           | 83        | 83                     | 83     | 83                         | 83        | 83                             |
| Heavy Vehicles, %          | 4         | 3                      | 3      | 2                          | 9         | 10                             |
| Mvmt Flow                  | 751       | 108                    | 131    | 1539                       | 127       | 107                            |
|                            |           |                        |        |                            |           |                                |
| Major/Minor                | Major1    |                        | Major2 |                            | Minor1    |                                |
| Conflicting Flow All       | 0         | 0                      | 859    | 0                          | 2552      | 751                            |
| Stage 1                    | -         | -                      | -      | -                          | 751       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 1801      | -                              |
| Critical Hdwy              | -         | -                      | 4.13   | -                          | 6.49      | 6.3                            |
| Critical Hdwy Stg 1        | -         | -                      | -      | -                          | 5.49      | -                              |
| Critical Hdwy Stg 2        | -         | -                      | -      | -                          | 5.49      | -                              |
| Follow-up Hdwy             | -         | -                      | 2.227  | -                          | 3.581     | 3.39                           |
| Pot Cap-1 Maneuver         | -         | -                      | 778    | -                          | ~ 28      | 398                            |
| Stage 1                    | -         | -                      | -      | -                          | 454       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 139       | -                              |
| Platoon blocked, %         | -         | -                      |        | -                          |           |                                |
| Mov Cap-1 Maneuver         | -         | -                      | 778    | -                          | ~ 23      | 398                            |
| Mov Cap-2 Maneuver         | -         | -                      | -      | -                          | ~ 23      | -                              |
| Stage 1                    | -         | -                      | -      | -                          | 454       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | ~ 116     | -                              |
|                            |           |                        |        |                            |           |                                |
|                            |           |                        |        |                            |           |                                |
| Approach                   | EB        |                        | WB     |                            | NB        |                                |
| HCM Control Delay, s       | 0         |                        | 0.8    |                            | \$ 2309.8 |                                |
| HCM LOS                    | F         |                        |        |                            |           |                                |
|                            |           |                        |        |                            |           |                                |
|                            |           |                        |        |                            |           |                                |
| Minor Lane/Major Mvmt      | NBLn1     | EBT                    | EBR    | WBL                        | WBT       |                                |
| Capacity (veh/h)           | 41        | -                      | -      | 778                        | -         |                                |
| HCM Lane V/C Ratio         | 5.701     | -                      | -      | 0.169                      | -         |                                |
| HCM Control Delay (s)      | \$ 2309.8 | -                      | -      | 10.6                       | -         |                                |
| HCM Lane LOS               | F         | -                      | -      | B                          | -         |                                |
| HCM 95th %tile Q(veh)      | 27.3      | -                      | -      | 0.6                        | -         |                                |
| Notes                      |           |                        |        |                            |           |                                |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |        | +: Computation Not Defined |           | *: All major volume in platoon |

| Intersection               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |          |                                                                                   |                                |          |                                                                                     |      |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|----------|-----------------------------------------------------------------------------------|--------------------------------|----------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh           | 40.7                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |          |                                                                                   |                                |          |                                                                                     |      |
| Movement                   | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL      | NBT                                                                               | NBR                            | SBL      | SBT                                                                                 | SBR  |
| Lane Configurations        |  |  |  |  |  |      |          |  |                                |          |  |      |
| Traffic Vol, veh/h         | 38                                                                                | 657                                                                               | 4                                                                                 | 36                                                                                | 1337                                                                              | 8    | 4        | 0                                                                                 | 40                             | 16       | 1                                                                                   | 125  |
| Future Vol, veh/h          | 38                                                                                | 657                                                                               | 4                                                                                 | 36                                                                                | 1337                                                                              | 8    | 4        | 0                                                                                 | 40                             | 16       | 1                                                                                   | 125  |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0        | 0                                                                                 | 0                              | 0        | 0                                                                                   | 0    |
| Sign Control               | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop     | Stop                                                                              | Stop                           | Stop     | Stop                                                                                | Stop |
| RT Channelized             | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -        | -                                                                                 | None                           | -        | -                                                                                   | None |
| Storage Length             | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -        | -                                                                                 | -                              | -        | -                                                                                   | -    |
| Veh in Median Storage, #   | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -        | 0                                                                                 | -                              | -        | 0                                                                                   | -    |
| Grade, %                   | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -        | 0                                                                                 | -                              | -        | 0                                                                                   | -    |
| Peak Hour Factor           | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90   | 90       | 90                                                                                | 90                             | 90       | 90                                                                                  | 90   |
| Heavy Vehicles, %          | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0    | 0        | 0                                                                                 | 0                              | 0        | 0                                                                                   | 0    |
| Mvmt Flow                  | 42                                                                                | 730                                                                               | 4                                                                                 | 40                                                                                | 1486                                                                              | 9    | 4        | 0                                                                                 | 44                             | 18       | 1                                                                                   | 139  |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |          |                                                                                   |                                |          |                                                                                     |      |
| Major/Minor                | Major1                                                                            |                                                                                   |                                                                                   | Major2                                                                            |                                                                                   |      | Minor1   |                                                                                   |                                | Minor2   |                                                                                     |      |
| Conflicting Flow All       | 1495                                                                              | 0                                                                                 | 0                                                                                 | 734                                                                               | 0                                                                                 | 0    | 2455     | 2389                                                                              | 365                            | 2020     | 2389                                                                                | 1491 |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 814      | 814                                                                               | -                              | 1571     | 1571                                                                                | -    |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 1641     | 1575                                                                              | -                              | 449      | 818                                                                                 | -    |
| Critical Hdwy              | 4.1                                                                               | -                                                                                 | -                                                                                 | 4.175                                                                             | -                                                                                 | -    | 7.3      | 6.5                                                                               | 6.9                            | 7.3      | 6.5                                                                                 | 6.2  |
| Critical Hdwy Stg 1        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.5      | 5.5                                                                               | -                              | 6.1      | 5.5                                                                                 | -    |
| Critical Hdwy Stg 2        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.1      | 5.5                                                                               | -                              | 6.5      | 5.5                                                                                 | -    |
| Follow-up Hdwy             | 2.2                                                                               | -                                                                                 | -                                                                                 | 2.2475                                                                            | -                                                                                 | -    | 3.5      | 4                                                                                 | 3.3                            | 3.5      | 4                                                                                   | 3.3  |
| Pot Cap-1 Maneuver         | 455                                                                               | -                                                                                 | -                                                                                 | 852                                                                               | -                                                                                 | -    | 19       | 34                                                                                | 638                            | 39       | 34                                                                                  | 153  |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 342      | 394                                                                               | -                              | 140      | 173                                                                                 | -    |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 128      | 172                                                                               | -                              | 564      | 393                                                                                 | -    |
| Platoon blocked, %         |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 | -    |          |                                                                                   |                                |          |                                                                                     |      |
| Mov Cap-1 Maneuver         | 455                                                                               | -                                                                                 | -                                                                                 | 852                                                                               | -                                                                                 | -    | ~ 2      | 29                                                                                | 638                            | 33       | 29                                                                                  | 153  |
| Mov Cap-2 Maneuver         | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | ~ 2      | 29                                                                                | -                              | 33       | 29                                                                                  | -    |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 311      | 358                                                                               | -                              | 127      | 165                                                                                 | -    |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 11       | 164                                                                               | -                              | 476      | 357                                                                                 | -    |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |          |                                                                                   |                                |          |                                                                                     |      |
| Approach                   | EB                                                                                |                                                                                   |                                                                                   | WB                                                                                |                                                                                   |      | NB       |                                                                                   |                                | SB       |                                                                                     |      |
| HCM Control Delay, s       | 0.7                                                                               |                                                                                   |                                                                                   | 0.2                                                                               |                                                                                   |      | \$ 993.8 |                                                                                   |                                | \$ 335.5 |                                                                                     |      |
| HCM LOS                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      | F        |                                                                                   |                                | F        |                                                                                     |      |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |          |                                                                                   |                                |          |                                                                                     |      |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT  | WBR      | SBLn1                                                                             |                                |          |                                                                                     |      |
| Capacity (veh/h)           | 21                                                                                | 455                                                                               | -                                                                                 | -                                                                                 | 852                                                                               | -    | -        | 106                                                                               |                                |          |                                                                                     |      |
| HCM Lane V/C Ratio         | 2.328                                                                             | 0.093                                                                             | -                                                                                 | -                                                                                 | 0.047                                                                             | -    | -        | 1.488                                                                             |                                |          |                                                                                     |      |
| HCM Control Delay (s)      | \$ 993.8                                                                          | 13.7                                                                              | -                                                                                 | -                                                                                 | 9.4                                                                               | -    | -        | \$ 335.5                                                                          |                                |          |                                                                                     |      |
| HCM Lane LOS               | F                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 | A                                                                                 | -    | -        | F                                                                                 |                                |          |                                                                                     |      |
| HCM 95th %tile Q(veh)      | 6.4                                                                               | 0.3                                                                               | -                                                                                 | -                                                                                 | 0.1                                                                               | -    | -        | 11.6                                                                              |                                |          |                                                                                     |      |
| Notes                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |          |                                                                                   |                                |          |                                                                                     |      |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s                                                            |                                                                                   |                                                                                   | +: Computation Not Defined                                                        |      |          |                                                                                   | *: All major volume in platoon |          |                                                                                     |      |

HCM 6th TWSC  
4: Driveway #1 & Old Cornelia Highway

2035 - Phase 3 Build Conditions  
AM Peak Hour

| Intersection               |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
|----------------------------|-----------------------------------------------------------------------------------|------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------|
| Int Delay, s/veh           | 1322.4                                                                            |                        |        |                                                                                   |                                                                                   |                                |
| Movement                   | EBT                                                                               | EBR                    | WBL    | WBT                                                                               | NBL                                                                               | NBR                            |
| Lane Configurations        |  |                        |        |  |  |                                |
| Traffic Vol, veh/h         | 601                                                                               | 111                    | 98     | 1156                                                                              | 329                                                                               | 290                            |
| Future Vol, veh/h          | 601                                                                               | 111                    | 98     | 1156                                                                              | 329                                                                               | 290                            |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                      | 0      | 0                                                                                 | 0                                                                                 | 0                              |
| Sign Control               | Free                                                                              | Free                   | Free   | Free                                                                              | Stop                                                                              | Stop                           |
| RT Channelized             | -                                                                                 | None                   | -      | None                                                                              | -                                                                                 | None                           |
| Storage Length             | -                                                                                 | -                      | -      | -                                                                                 | 0                                                                                 | -                              |
| Veh in Median Storage, #   | 0                                                                                 | -                      | -      | 0                                                                                 | 0                                                                                 | -                              |
| Grade, %                   | 0                                                                                 | -                      | -      | 0                                                                                 | 0                                                                                 | -                              |
| Peak Hour Factor           | 92                                                                                | 92                     | 92     | 92                                                                                | 92                                                                                | 92                             |
| Heavy Vehicles, %          | 2                                                                                 | 2                      | 2      | 2                                                                                 | 2                                                                                 | 2                              |
| Mvmt Flow                  | 653                                                                               | 121                    | 107    | 1257                                                                              | 358                                                                               | 315                            |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| Major/Minor                | Major1                                                                            |                        | Major2 |                                                                                   | Minor1                                                                            |                                |
| Conflicting Flow All       | 0                                                                                 | 0                      | 774    | 0                                                                                 | 2185                                                                              | 714                            |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 714                                                                               | -                              |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | 1471                                                                              | -                              |
| Critical Hdwy              | -                                                                                 | -                      | 4.12   | -                                                                                 | 6.42                                                                              | 6.22                           |
| Critical Hdwy Stg 1        | -                                                                                 | -                      | -      | -                                                                                 | 5.42                                                                              | -                              |
| Critical Hdwy Stg 2        | -                                                                                 | -                      | -      | -                                                                                 | 5.42                                                                              | -                              |
| Follow-up Hdwy             | -                                                                                 | -                      | 2.218  | -                                                                                 | 3.518                                                                             | 3.318                          |
| Pot Cap-1 Maneuver         | -                                                                                 | -                      | 842    | -                                                                                 | ~ 50                                                                              | 431                            |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 485                                                                               | -                              |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | ~ 211                                                                             | -                              |
| Platoon blocked, %         | -                                                                                 | -                      | -      | -                                                                                 | -                                                                                 | -                              |
| Mov Cap-1 Maneuver         | -                                                                                 | -                      | 842    | -                                                                                 | ~ 29                                                                              | 431                            |
| Mov Cap-2 Maneuver         | -                                                                                 | -                      | -      | -                                                                                 | ~ 29                                                                              | -                              |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 485                                                                               | -                              |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | ~ 122                                                                             | -                              |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| Approach                   | EB                                                                                |                        | WB     |                                                                                   | NB                                                                                |                                |
| HCM Control Delay, s       | 0                                                                                 |                        | 0.8    |                                                                                   | \$ 5520.8                                                                         |                                |
| HCM LOS                    | F                                                                                 |                        |        |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBT                    | EBR    | WBL                                                                               | WBT                                                                               |                                |
| Capacity (veh/h)           | 52                                                                                | -                      | -      | 842                                                                               | -                                                                                 |                                |
| HCM Lane V/C Ratio         | 12.939                                                                            | -                      | -      | 0.127                                                                             | -                                                                                 |                                |
| HCM Control Delay (s)      | \$ 5520.8                                                                         | -                      | -      | 9.9                                                                               | 0                                                                                 |                                |
| HCM Lane LOS               | F                                                                                 | -                      | -      | A                                                                                 | A                                                                                 |                                |
| HCM 95th %tile Q(veh)      | 80.7                                                                              | -                      | -      | 0.4                                                                               | -                                                                                 |                                |
| Notes                      |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s |        | +: Computation Not Defined                                                        |                                                                                   | *: All major volume in platoon |

| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.8                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 1375                                                                              | 17   | 0    | 851                                                                               | 10                                                                                | 0    |
| Future Vol, veh/h        | 1375                                                                              | 17   | 0    | 851                                                                               | 10                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                | 90   |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2    | 1                                                                                 | 14                                                                                | 2    |
| Mvmt Flow                | 1528                                                                              | 19   | 0    | 946                                                                               | 11                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1547   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 429    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 429    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB    |
|----------------------|----|----|-------|
| HCM Control Delay, s | 0  | 0  | 183.5 |
| HCM LOS              |    |    | F     |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 30    | -   | -   | 429 | -   |
| HCM Lane V/C Ratio    | 0.37  | -   | -   | -   | -   |
| HCM Control Delay (s) | 183.5 | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 1.2   | -   | -   | 0   | -   |

| Intersection                                                                                                         |          |      |        |       |          |      |
|----------------------------------------------------------------------------------------------------------------------|----------|------|--------|-------|----------|------|
| Int Delay, s/veh                                                                                                     | 28.8     |      |        |       |          |      |
| Movement                                                                                                             | EBT      | EBR  | WBL    | WBT   | NBL      | NBR  |
| Lane Configurations                                                                                                  | ↑        | ↗    | ↘      | ↑     | ↘↗       |      |
| Traffic Vol, veh/h                                                                                                   | 1488     | 30   | 41     | 719   | 36       | 76   |
| Future Vol, veh/h                                                                                                    | 1488     | 30   | 41     | 719   | 36       | 76   |
| Conflicting Peds, #/hr                                                                                               | 0        | 0    | 0      | 0     | 0        | 0    |
| Sign Control                                                                                                         | Free     | Free | Free   | Free  | Stop     | Stop |
| RT Channelized                                                                                                       | -        | None | -      | None  | -        | None |
| Storage Length                                                                                                       | -        | 200  | 150    | -     | 0        | -    |
| Veh in Median Storage, #                                                                                             | 0        | -    | -      | 0     | 0        | -    |
| Grade, %                                                                                                             | 0        | -    | -      | 0     | 0        | -    |
| Peak Hour Factor                                                                                                     | 92       | 92   | 92     | 92    | 92       | 92   |
| Heavy Vehicles, %                                                                                                    | 9        | 0    | 0      | 2     | 0        | 0    |
| Mvmt Flow                                                                                                            | 1617     | 33   | 45     | 782   | 39       | 83   |
|                                                                                                                      |          |      |        |       |          |      |
| Major/Minor                                                                                                          | Major1   |      | Major2 |       | Minor1   |      |
| Conflicting Flow All                                                                                                 | 0        | 0    | 1650   | 0     | 2489     | 1617 |
| Stage 1                                                                                                              | -        | -    | -      | -     | 1617     | -    |
| Stage 2                                                                                                              | -        | -    | -      | -     | 872      | -    |
| Critical Hdwy                                                                                                        | -        | -    | 4.1    | -     | 6.4      | 6.2  |
| Critical Hdwy Stg 1                                                                                                  | -        | -    | -      | -     | 5.4      | -    |
| Critical Hdwy Stg 2                                                                                                  | -        | -    | -      | -     | 5.4      | -    |
| Follow-up Hdwy                                                                                                       | -        | -    | 2.2    | -     | 3.5      | 3.3  |
| Pot Cap-1 Maneuver                                                                                                   | -        | -    | 397    | -     | ~ 33     | 129  |
| Stage 1                                                                                                              | -        | -    | -      | -     | 180      | -    |
| Stage 2                                                                                                              | -        | -    | -      | -     | 412      | -    |
| Platoon blocked, %                                                                                                   | -        | -    |        | -     |          |      |
| Mov Cap-1 Maneuver                                                                                                   | -        | -    | 397    | -     | ~ 29     | 129  |
| Mov Cap-2 Maneuver                                                                                                   | -        | -    | -      | -     | ~ 29     | -    |
| Stage 1                                                                                                              | -        | -    | -      | -     | 180      | -    |
| Stage 2                                                                                                              | -        | -    | -      | -     | 365      | -    |
|                                                                                                                      |          |      |        |       |          |      |
| Approach                                                                                                             | EB       |      | WB     |       | NB       |      |
| HCM Control Delay, s                                                                                                 | 0        |      | 0.8    |       | \$ 609.3 |      |
| HCM LOS                                                                                                              |          |      |        |       | F        |      |
|                                                                                                                      |          |      |        |       |          |      |
| Minor Lane/Major Mvmt                                                                                                | NBLn1    | EBT  | EBR    | WBL   | WBT      |      |
| Capacity (veh/h)                                                                                                     | 61       | -    | -      | 397   | -        |      |
| HCM Lane V/C Ratio                                                                                                   | 1.996    | -    | -      | 0.112 | -        |      |
| HCM Control Delay (s)                                                                                                | \$ 609.3 | -    | -      | 15.2  | -        |      |
| HCM Lane LOS                                                                                                         | F        | -    | -      | C     | -        |      |
| HCM 95th %tile Q(veh)                                                                                                | 11.5     | -    | -      | 0.4   | -        |      |
| Notes                                                                                                                |          |      |        |       |          |      |
| ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    *: All major volume in platoon |          |      |        |       |          |      |



HCM 6th TWSC  
3: Shell Gas Station/Oconee Circle & Old Cornelia Highway

2035 - Phase 3 Build Conditions  
PM Peak Hour

| Intersection               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |           |                                                                                   |                                |        |                                                                                   |                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------|-----------------------------------------------------------------------------------|--------------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh           | 156.6                                                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |           |                                                                                   |                                |        |                                                                                   |                                                                                   |
| Movement                   | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL       | NBT                                                                               | NBR                            | SBL    | SBT                                                                               | SBR                                                                               |
| Lane Configurations        |  |  |  |  |  |      |           |  |                                |        |  |  |
| Traffic Vol, veh/h         | 103                                                                               | 1390                                                                              | 44                                                                                | 30                                                                                | 721                                                                               | 3    | 26        | 7                                                                                 | 122                            | 5      | 2                                                                                 | 70                                                                                |
| Future Vol, veh/h          | 103                                                                               | 1390                                                                              | 44                                                                                | 30                                                                                | 721                                                                               | 3    | 26        | 7                                                                                 | 122                            | 5      | 2                                                                                 | 70                                                                                |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0         | 0                                                                                 | 0                              | 0      | 0                                                                                 | 0                                                                                 |
| Sign Control               | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop      | Stop                                                                              | Stop                           | Stop   | Stop                                                                              | Stop                                                                              |
| RT Channelized             | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -         | -                                                                                 | None                           | -      | -                                                                                 | None                                                                              |
| Storage Length             | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -         | -                                                                                 | -                              | -      | -                                                                                 | -                                                                                 |
| Veh in Median Storage, #   | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -         | 0                                                                                 | -                              | -      | 0                                                                                 | -                                                                                 |
| Grade, %                   | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -         | 0                                                                                 | -                              | -      | 0                                                                                 | -                                                                                 |
| Peak Hour Factor           | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87   | 87        | 87                                                                                | 87                             | 87     | 87                                                                                | 87                                                                                |
| Heavy Vehicles, %          | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0    | 0         | 0                                                                                 | 0                              | 0      | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                  | 118                                                                               | 1598                                                                              | 51                                                                                | 34                                                                                | 829                                                                               | 3    | 30        | 8                                                                                 | 140                            | 6      | 2                                                                                 | 80                                                                                |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |           |                                                                                   |                                |        |                                                                                   |                                                                                   |
| Major/Minor                | Major1                                                                            |                                                                                   |                                                                                   | Major2                                                                            |                                                                                   |      | Minor1    |                                                                                   |                                | Minor2 |                                                                                   |                                                                                   |
| Conflicting Flow All       | 832                                                                               | 0                                                                                 | 0                                                                                 | 1649                                                                              | 0                                                                                 | 0    | 2774      | 2734                                                                              | 799                            | 1938   | 2784                                                                              | 831                                                                               |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 1834      | 1834                                                                              | -                              | 899    | 899                                                                               | -                                                                                 |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 940       | 900                                                                               | -                              | 1039   | 1885                                                                              | -                                                                                 |
| Critical Hdwy              | 4.115                                                                             | -                                                                                 | -                                                                                 | 4.1                                                                               | -                                                                                 | -    | 7.3       | 6.5                                                                               | 6.9                            | 7.3    | 6.5                                                                               | 6.2                                                                               |
| Critical Hdwy Stg 1        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.5       | 5.5                                                                               | -                              | 6.1    | 5.5                                                                               | -                                                                                 |
| Critical Hdwy Stg 2        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.1       | 5.5                                                                               | -                              | 6.5    | 5.5                                                                               | -                                                                                 |
| Follow-up Hdwy             | 2.2095                                                                            | -                                                                                 | -                                                                                 | 2.2                                                                               | -                                                                                 | -    | 3.5       | 4                                                                                 | 3.3                            | 3.5    | 4                                                                                 | 3.3                                                                               |
| Pot Cap-1 Maneuver         | 804                                                                               | -                                                                                 | -                                                                                 | 397                                                                               | -                                                                                 | -    | ~ 11      | 21                                                                                | 333                            | 45     | 19                                                                                | 373                                                                               |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 80        | 128                                                                               | -                              | 336    | 360                                                                               | -                                                                                 |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 319       | 360                                                                               | -                              | 250    | 121                                                                               | -                                                                                 |
| Platoon blocked, %         |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 | -    |           |                                                                                   |                                |        |                                                                                   |                                                                                   |
| Mov Cap-1 Maneuver         | 804                                                                               | -                                                                                 | -                                                                                 | 397                                                                               | -                                                                                 | -    | ~ 6       | 16                                                                                | 333                            | 13     | 15                                                                                | 373                                                                               |
| Mov Cap-2 Maneuver         | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | ~ 6       | 16                                                                                | -                              | 13     | 15                                                                                | -                                                                                 |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 68        | 109                                                                               | -                              | 287    | 329                                                                               | -                                                                                 |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 227       | 329                                                                               | -                              | 114    | 103                                                                               | -                                                                                 |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |           |                                                                                   |                                |        |                                                                                   |                                                                                   |
| Approach                   | EB                                                                                |                                                                                   |                                                                                   | WB                                                                                |                                                                                   |      | NB        |                                                                                   |                                | SB     |                                                                                   |                                                                                   |
| HCM Control Delay, s       | 0.7                                                                               |                                                                                   |                                                                                   | 0.6                                                                               |                                                                                   |      | \$ 2483.4 |                                                                                   |                                | 113.4  |                                                                                   |                                                                                   |
| HCM LOS                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      | F         |                                                                                   |                                | F      |                                                                                   |                                                                                   |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |           |                                                                                   |                                |        |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT  | WBR       | SBLn1                                                                             |                                |        |                                                                                   |                                                                                   |
| Capacity (veh/h)           | 30                                                                                | 804                                                                               | -                                                                                 | -                                                                                 | 397                                                                               | -    | -         | 109                                                                               |                                |        |                                                                                   |                                                                                   |
| HCM Lane V/C Ratio         | 5.939                                                                             | 0.147                                                                             | -                                                                                 | -                                                                                 | 0.087                                                                             | -    | -         | 0.812                                                                             |                                |        |                                                                                   |                                                                                   |
| HCM Control Delay (s)      | \$ 2483.4                                                                         | 10.2                                                                              | -                                                                                 | -                                                                                 | 14.9                                                                              | -    | -         | 113.4                                                                             |                                |        |                                                                                   |                                                                                   |
| HCM Lane LOS               | F                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 | B                                                                                 | -    | -         | F                                                                                 |                                |        |                                                                                   |                                                                                   |
| HCM 95th %tile Q(veh)      | 21.6                                                                              | 0.5                                                                               | -                                                                                 | -                                                                                 | 0.3                                                                               | -    | -         | 4.6                                                                               |                                |        |                                                                                   |                                                                                   |
| Notes                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |           |                                                                                   |                                |        |                                                                                   |                                                                                   |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s                                                            |                                                                                   |                                                                                   | +: Computation Not Defined                                                        |      |           |                                                                                   | *: All major volume in platoon |        |                                                                                   |                                                                                   |

| Intersection               |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
|----------------------------|-----------------------------------------------------------------------------------|------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------|
| Int Delay, s/veh           | 146.1                                                                             |                        |        |                                                                                   |                                                                                   |                                |
| Movement                   | EBT                                                                               | EBR                    | WBL    | WBT                                                                               | NBL                                                                               | NBR                            |
| Lane Configurations        |  |                        |        |  |  |                                |
| Traffic Vol, veh/h         | 1201                                                                              | 363                    | 320    | 541                                                                               | 218                                                                               | 192                            |
| Future Vol, veh/h          | 1201                                                                              | 363                    | 320    | 541                                                                               | 218                                                                               | 192                            |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                      | 0      | 0                                                                                 | 0                                                                                 | 0                              |
| Sign Control               | Free                                                                              | Free                   | Free   | Free                                                                              | Stop                                                                              | Stop                           |
| RT Channelized             | -                                                                                 | None                   | -      | None                                                                              | -                                                                                 | None                           |
| Storage Length             | -                                                                                 | -                      | -      | -                                                                                 | 0                                                                                 | -                              |
| Veh in Median Storage, #   | 0                                                                                 | -                      | -      | 0                                                                                 | 0                                                                                 | -                              |
| Grade, %                   | 0                                                                                 | -                      | -      | 0                                                                                 | 0                                                                                 | -                              |
| Peak Hour Factor           | 92                                                                                | 92                     | 92     | 92                                                                                | 92                                                                                | 92                             |
| Heavy Vehicles, %          | 2                                                                                 | 2                      | 2      | 2                                                                                 | 2                                                                                 | 2                              |
| Mvmt Flow                  | 1305                                                                              | 395                    | 348    | 588                                                                               | 237                                                                               | 209                            |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| Major/Minor                | Major1                                                                            | Major2                 | Minor1 |                                                                                   |                                                                                   |                                |
| Conflicting Flow All       | 0                                                                                 | 0                      | 1700   | 0                                                                                 | 2787                                                                              | 1503                           |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | 1503                                                                              | -                              |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | 1284                                                                              | -                              |
| Critical Hdwy              | -                                                                                 | -                      | 4.12   | -                                                                                 | 6.42                                                                              | 6.22                           |
| Critical Hdwy Stg 1        | -                                                                                 | -                      | -      | -                                                                                 | 5.42                                                                              | -                              |
| Critical Hdwy Stg 2        | -                                                                                 | -                      | -      | -                                                                                 | 5.42                                                                              | -                              |
| Follow-up Hdwy             | -                                                                                 | -                      | 2.218  | -                                                                                 | 3.518                                                                             | 3.318                          |
| Pot Cap-1 Maneuver         | -                                                                                 | -                      | 374    | -                                                                                 | ~ 21                                                                              | ~ 149                          |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | ~ 203                                                                             | -                              |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | 260                                                                               | -                              |
| Platoon blocked, %         | -                                                                                 | -                      | -      | -                                                                                 | -                                                                                 | -                              |
| Mov Cap-1 Maneuver         | -                                                                                 | -                      | 374    | -                                                                                 | 0                                                                                 | ~ 149                          |
| Mov Cap-2 Maneuver         | -                                                                                 | -                      | -      | -                                                                                 | 0                                                                                 | -                              |
| Stage 1                    | -                                                                                 | -                      | -      | -                                                                                 | ~ 203                                                                             | -                              |
| Stage 2                    | -                                                                                 | -                      | -      | -                                                                                 | 0                                                                                 | -                              |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| Approach                   | EB                                                                                | WB                     |        | NB                                                                                |                                                                                   |                                |
| HCM Control Delay, s       | 0                                                                                 | 23.9                   |        | \$ 960                                                                            |                                                                                   |                                |
| HCM LOS                    | F                                                                                 |                        |        |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
|                            |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBT                    | EBR    | WBL                                                                               | WBT                                                                               |                                |
| Capacity (veh/h)           | 149                                                                               | -                      | -      | 374                                                                               | -                                                                                 |                                |
| HCM Lane V/C Ratio         | 2.991                                                                             | -                      | -      | 0.93                                                                              | -                                                                                 |                                |
| HCM Control Delay (s)      | \$ 960                                                                            | -                      | -      | 64.3                                                                              | 0                                                                                 |                                |
| HCM Lane LOS               | F                                                                                 | -                      | -      | F                                                                                 | A                                                                                 |                                |
| HCM 95th %tile Q(veh)      | 41.1                                                                              | -                      | -      | 9.9                                                                               | -                                                                                 |                                |
| Notes                      |                                                                                   |                        |        |                                                                                   |                                                                                   |                                |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s |        | +: Computation Not Defined                                                        |                                                                                   | *: All major volume in platoon |

## APPENDIX L

### CAPACITY ANALYSIS REPORTS - WIDENING CONDITIONS



**NO-BUILD**

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑↑   |      |
| Traffic Vol, veh/h       | 508  | 11   | 1    | 896  | 15   | 3    |
| Future Vol, veh/h        | 508  | 11   | 1    | 896  | 15   | 3    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 7    | 11   | 0    | 2    | 0    | 33   |
| Mvmt Flow                | 552  | 12   | 1    | 974  | 16   | 3    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |      |
|----------------------|--------|--------|--------|---|------|------|
| Conflicting Flow All | 0      | 0      | 564    | 0 | 1047 | 282  |
| Stage 1              | -      | -      | -      | - | 558  | -    |
| Stage 2              | -      | -      | -      | - | 489  | -    |
| Critical Hdwy        | -      | -      | 4.1    | - | 6.8  | 7.56 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.8  | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.8  | -    |
| Follow-up Hdwy       | -      | -      | 2.2    | - | 3.5  | 3.63 |
| Pot Cap-1 Maneuver   | -      | -      | 1018   | - | 227  | 630  |
| Stage 1              | -      | -      | -      | - | 542  | -    |
| Stage 2              | -      | -      | -      | - | 588  | -    |
| Platoon blocked, %   | -      | -      | -      | - | -    | -    |
| Mov Cap-1 Maneuver   | -      | -      | 1018   | - | 227  | 630  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 227  | -    |
| Stage 1              | -      | -      | -      | - | 542  | -    |
| Stage 2              | -      | -      | -      | - | 587  | -    |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 20.4 |
| HCM LOS              |    |    | C    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 254   | -   | -   | 1018  | -   |
| HCM Lane V/C Ratio    | 0.077 | -   | -   | 0.001 | -   |
| HCM Control Delay (s) | 20.4  | -   | -   | 8.5   | 0   |
| HCM Lane LOS          | C     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.2   | -   | -   | 0     | -   |



| Intersection             |        |      |        |      |        |      |
|--------------------------|--------|------|--------|------|--------|------|
| Int Delay, s/veh         | 5.8    |      |        |      |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT  | NBL    | NBR  |
| Lane Configurations      | ↑↑     | ↗    | ↖      | ↑↑   | ↘      |      |
| Traffic Vol, veh/h       | 458    | 77   | 46     | 865  | 90     | 60   |
| Future Vol, veh/h        | 458    | 77   | 46     | 865  | 90     | 60   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0    | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free | Stop   | Stop |
| RT Channelized           | -      | None | -      | None | -      | None |
| Storage Length           | -      | 200  | 150    | -    | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0    | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0    | 0      | -    |
| Peak Hour Factor         | 83     | 83   | 83     | 83   | 83     | 83   |
| Heavy Vehicles, %        | 4      | 3    | 3      | 2    | 9      | 10   |
| Mvmt Flow                | 552    | 93   | 55     | 1042 | 108    | 72   |
|                          |        |      |        |      |        |      |
| Major/Minor              | Major1 |      | Major2 |      | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 645    | 0    | 1183   | 276  |
| Stage 1                  | -      | -    | -      | -    | 552    | -    |
| Stage 2                  | -      | -    | -      | -    | 631    | -    |
| Critical Hdwy            | -      | -    | 4.16   | -    | 6.98   | 7.1  |
| Critical Hdwy Stg 1      | -      | -    | -      | -    | 5.98   | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -    | 5.98   | -    |
| Follow-up Hdwy           | -      | -    | 2.23   | -    | 3.59   | 3.4  |
| Pot Cap-1 Maneuver       | -      | -    | 929    | -    | 172    | 698  |
| Stage 1                  | -      | -    | -      | -    | 521    | -    |
| Stage 2                  | -      | -    | -      | -    | 474    | -    |
| Platoon blocked, %       | -      | -    |        | -    |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 929    | -    | 162    | 698  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -    | 162    | -    |
| Stage 1                  | -      | -    | -      | -    | 521    | -    |
| Stage 2                  | -      | -    | -      | -    | 446    | -    |
|                          |        |      |        |      |        |      |
|                          |        |      |        |      |        |      |
| Approach                 | EB     |      | WB     |      | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.5    |      | 58.4   |      |
| HCM LOS                  | F      |      |        |      |        |      |
|                          |        |      |        |      |        |      |
|                          |        |      |        |      |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL  | WBT    |      |
| Capacity (veh/h)         | 234    | -    | -      | 929  | -      |      |
| HCM Lane V/C Ratio       | 0.772  | -    | -      | 0.06 | -      |      |
| HCM Control Delay (s)    | 58.4   | -    | -      | 9.1  | -      |      |
| HCM Lane LOS             | F      | -    | -      | A    | -      |      |
| HCM 95th %tile Q(veh)    | 5.5    | -    | -      | 0.2  | -      |      |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|------|--------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 2.4                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL    | NBT                                                                               | NBR  | SBL    | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |  |  |  |      |        |  |      |        |  |      |
| Traffic Vol, veh/h       | 33                                                                                | 491                                                                               | 3                                                                                 | 22                                                                                | 929                                                                               | 4    | 3      | 0                                                                                 | 32   | 13     | 1                                                                                   | 108  |
| Future Vol, veh/h        | 33                                                                                | 491                                                                               | 3                                                                                 | 22                                                                                | 929                                                                               | 4    | 3      | 0                                                                                 | 32   | 13     | 1                                                                                   | 108  |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0      | 0                                                                                 | 0    | 0      | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop   | Stop                                                                              | Stop | Stop   | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -      | -                                                                                 | None | -      | -                                                                                   | None |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -      | -                                                                                 | -    | -      | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -    | -      | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -    | -      | 0                                                                                   | -    |
| Peak Hour Factor         | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90   | 90     | 90                                                                                | 90   | 90     | 90                                                                                  | 90   |
| Heavy Vehicles, %        | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0    | 0      | 0                                                                                 | 0    | 0      | 0                                                                                   | 0    |
| Mvmt Flow                | 37                                                                                | 546                                                                               | 3                                                                                 | 24                                                                                | 1032                                                                              | 4    | 3      | 0                                                                                 | 36   | 14     | 1                                                                                   | 120  |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
| Major/Minor              | Major1                                                                            |                                                                                   |                                                                                   | Major2                                                                            |                                                                                   |      | Minor1 |                                                                                   |      | Minor2 |                                                                                     |      |
| Conflicting Flow All     | 1036                                                                              | 0                                                                                 | 0                                                                                 | 549                                                                               | 0                                                                                 | 0    | 1185   | 1704                                                                              | 273  | 1429   | 1705                                                                                | 518  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 620    | 620                                                                               | -    | 1082   | 1082                                                                                | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 565    | 1084                                                                              | -    | 347    | 623                                                                                 | -    |
| Critical Hdwy            | 4.1                                                                               | -                                                                                 | -                                                                                 | 4.2                                                                               | -                                                                                 | -    | 7.5    | 6.5                                                                               | 6.9  | 7.5    | 6.5                                                                                 | 6.9  |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.5    | 5.5                                                                               | -    | 6.5    | 5.5                                                                                 | -    |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.5    | 5.5                                                                               | -    | 6.5    | 5.5                                                                                 | -    |
| Follow-up Hdwy           | 2.2                                                                               | -                                                                                 | -                                                                                 | 2.25                                                                              | -                                                                                 | -    | 3.5    | 4                                                                                 | 3.3  | 3.5    | 4                                                                                   | 3.3  |
| Pot Cap-1 Maneuver       | 679                                                                               | -                                                                                 | -                                                                                 | 996                                                                               | -                                                                                 | -    | 147    | 93                                                                                | 731  | 97     | 92                                                                                  | 508  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 447    | 483                                                                               | -    | 236    | 296                                                                                 | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 482    | 296                                                                               | -    | 648    | 481                                                                                 | -    |
| Platoon blocked, %       |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 | -    |        |                                                                                   |      |        |                                                                                     |      |
| Mov Cap-1 Maneuver       | 679                                                                               | -                                                                                 | -                                                                                 | 996                                                                               | -                                                                                 | -    | 105    | 86                                                                                | 731  | 87     | 85                                                                                  | 508  |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 105    | 86                                                                                | -    | 87     | 85                                                                                  | -    |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 423    | 457                                                                               | -    | 223    | 289                                                                                 | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 358    | 289                                                                               | -    | 583    | 455                                                                                 | -    |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
| Approach                 | EB                                                                                |                                                                                   |                                                                                   | WB                                                                                |                                                                                   |      | NB     |                                                                                   |      | SB     |                                                                                     |      |
| HCM Control Delay, s     | 0.7                                                                               |                                                                                   |                                                                                   | 0.2                                                                               |                                                                                   |      | 13.1   |                                                                                   |      | 23.7   |                                                                                     |      |
| HCM LOS                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      | B      |                                                                                   |      | C      |                                                                                     |      |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT  | WBR    | SBLn1                                                                             |      |        |                                                                                     |      |
| Capacity (veh/h)         | 484                                                                               | 679                                                                               | -                                                                                 | -                                                                                 | 996                                                                               | -    | -      | 326                                                                               |      |        |                                                                                     |      |
| HCM Lane V/C Ratio       | 0.08                                                                              | 0.054                                                                             | -                                                                                 | -                                                                                 | 0.025                                                                             | -    | -      | 0.416                                                                             |      |        |                                                                                     |      |
| HCM Control Delay (s)    | 13.1                                                                              | 10.6                                                                              | -                                                                                 | -                                                                                 | 8.7                                                                               | -    | -      | 23.7                                                                              |      |        |                                                                                     |      |
| HCM Lane LOS             | B                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 | A                                                                                 | -    | -      | C                                                                                 |      |        |                                                                                     |      |
| HCM 95th %tile Q(veh)    | 0.3                                                                               | 0.2                                                                               | -                                                                                 | -                                                                                 | 0.1                                                                               | -    | -      | 2                                                                                 |      |        |                                                                                     |      |

| Intersection             |        |      |        |      |        |      |
|--------------------------|--------|------|--------|------|--------|------|
| Int Delay, s/veh         | 0.2    |      |        |      |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT  | NBL    | NBR  |
| Lane Configurations      | ↑↑     |      |        | ↑↑   | ↑      |      |
| Traffic Vol, veh/h       | 1020   | 15   | 0      | 458  | 8      | 0    |
| Future Vol, veh/h        | 1020   | 15   | 0      | 458  | 8      | 0    |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0    | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free | Stop   | Stop |
| RT Channelized           | -      | None | -      | None | -      | None |
| Storage Length           | -      | -    | -      | -    | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0    | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0    | 0      | -    |
| Peak Hour Factor         | 90     | 90   | 90     | 90   | 90     | 90   |
| Heavy Vehicles, %        | 1      | 8    | 2      | 1    | 14     | 2    |
| Mvmt Flow                | 1133   | 17   | 0      | 509  | 9      | 0    |
|                          |        |      |        |      |        |      |
| Major/Minor              | Major1 |      | Major2 |      | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1150   | 0    | 1397   | 575  |
| Stage 1                  | -      | -    | -      | -    | 1142   | -    |
| Stage 2                  | -      | -    | -      | -    | 255    | -    |
| Critical Hdwy            | -      | -    | 4.14   | -    | 7.08   | 6.94 |
| Critical Hdwy Stg 1      | -      | -    | -      | -    | 6.08   | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -    | 6.08   | -    |
| Follow-up Hdwy           | -      | -    | 2.22   | -    | 3.64   | 3.32 |
| Pot Cap-1 Maneuver       | -      | -    | 603    | -    | 118    | 461  |
| Stage 1                  | -      | -    | -      | -    | 242    | -    |
| Stage 2                  | -      | -    | -      | -    | 729    | -    |
| Platoon blocked, %       | -      | -    |        | -    |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 603    | -    | 118    | 461  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -    | 118    | -    |
| Stage 1                  | -      | -    | -      | -    | 242    | -    |
| Stage 2                  | -      | -    | -      | -    | 729    | -    |
|                          |        |      |        |      |        |      |
|                          |        |      |        |      |        |      |
| Approach                 | EB     |      | WB     |      | NB     |      |
| HCM Control Delay, s     | 0      |      | 0      |      | 38     |      |
| HCM LOS                  |        |      |        |      | E      |      |
|                          |        |      |        |      |        |      |
|                          |        |      |        |      |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL  | WBT    |      |
| Capacity (veh/h)         | 118    | -    | -      | 603  | -      |      |
| HCM Lane V/C Ratio       | 0.075  | -    | -      | -    | -      |      |
| HCM Control Delay (s)    | 38     | -    | -      | 0    | -      |      |
| HCM Lane LOS             | E      | -    | -      | A    | -      |      |
| HCM 95th %tile Q(veh)    | 0.2    | -    | -      | 0    | -      |      |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 0.9    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     | ↗    | ↖      | ↑↑    | ↘      |      |
| Traffic Vol, veh/h       | 1023   | 25   | 3      | 463   | 31     | 12   |
| Future Vol, veh/h        | 1023   | 25   | 3      | 463   | 31     | 12   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1112   | 27   | 3      | 503   | 34     | 13   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1139   | 0     | 1370   | 556  |
| Stage 1                  | -      | -    | -      | -     | 1112   | -    |
| Stage 2                  | -      | -    | -      | -     | 258    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 6.9  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 621    | -     | 140    | 480  |
| Stage 1                  | -      | -    | -      | -     | 281    | -    |
| Stage 2                  | -      | -    | -      | -     | 767    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 621    | -     | 139    | 480  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 139    | -    |
| Stage 1                  | -      | -    | -      | -     | 281    | -    |
| Stage 2                  | -      | -    | -      | -     | 763    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.1    |       | 33.3   |      |
| HCM LOS                  | D      |      |        |       |        |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 173    | -    | -      | 621   | -      |      |
| HCM Lane V/C Ratio       | 0.27   | -    | -      | 0.005 | -      |      |
| HCM Control Delay (s)    | 33.3   | -    | -      | 10.8  | -      |      |
| HCM Lane LOS             | D      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 1      | -    | -      | 0     | -      |      |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 6.4                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |  |  |  |  |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 89                                                                                | 951                                                                               | 38                                                                                | 20                                                                                | 473                                                                               | 1                                                                                 | 22   | 6                                                                                 | 95   | 2    | 2                                                                                   | 60   |
| Future Vol, veh/h        | 89                                                                                | 951                                                                               | 38                                                                                | 20                                                                                | 473                                                                               | 1                                                                                 | 22   | 6                                                                                 | 95   | 2    | 2                                                                                   | 60   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None                                                                              | -    | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87   | 87                                                                                | 87   | 87   | 87                                                                                  | 87   |
| Heavy Vehicles, %        | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Mvmt Flow                | 102                                                                               | 1093                                                                              | 44                                                                                | 23                                                                                | 544                                                                               | 1                                                                                 | 25   | 7                                                                                 | 109  | 2    | 2                                                                                   | 69   |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |     |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|-----|
| Conflicting Flow All | 545    | 0 | 0 | 1137   | 0 | 0 | 1616   | 1888 | 547 | 1345   | 1932 | 273 |
| Stage 1              | -      | - | - | -      | - | - | 1297   | 1297 | -   | 591    | 591  | -   |
| Stage 2              | -      | - | - | -      | - | - | 319    | 591  | -   | 754    | 1341 | -   |
| Critical Hdwy        | 4.12   | - | - | 4.1    | - | - | 7.5    | 6.5  | 6.9 | 7.5    | 6.5  | 6.9 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Follow-up Hdwy       | 2.21   | - | - | 2.2    | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3 |
| Pot Cap-1 Maneuver   | 1027   | - | - | 622    | - | - | 70     | 71   | 486 | 112    | 67   | 731 |
| Stage 1              | -      | - | - | -      | - | - | 174    | 234  | -   | 465    | 498  | -   |
| Stage 2              | -      | - | - | -      | - | - | 673    | 498  | -   | 372    | 223  | -   |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -   | -      | -    | -   |
| Mov Cap-1 Maneuver   | 1027   | - | - | 622    | - | - | 55     | 62   | 486 | 71     | 58   | 731 |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 55     | 62   | -   | 71     | 58   | -   |
| Stage 1              | -      | - | - | -      | - | - | 157    | 211  | -   | 419    | 480  | -   |
| Stage 2              | -      | - | - | -      | - | - | 584    | 480  | -   | 251    | 201  | -   |

| Approach             | EB  |  |  | WB  |  |  | NB   |  |  | SB   |  |  |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.7 |  |  | 0.4 |  |  | 75.7 |  |  | 14.8 |  |  |
| HCM LOS              |     |  |  |     |  |  | F    |  |  | B    |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBL  | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 178   | 1027 | -   | -   | 622   | -   | -   | 442   |
| HCM Lane V/C Ratio    | 0.794 | 0.1  | -   | -   | 0.037 | -   | -   | 0.166 |
| HCM Control Delay (s) | 75.7  | 8.9  | -   | -   | 11    | -   | -   | 14.8  |
| HCM Lane LOS          | F     | A    | -   | -   | B     | -   | -   | B     |
| HCM 95th %tile Q(veh) | 5.3   | 0.3  | -   | -   | 0.1   | -   | -   | 0.6   |



| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑↑   |      |
| Traffic Vol, veh/h       | 546  | 11   | 1    | 963  | 16   | 3    |
| Future Vol, veh/h        | 546  | 11   | 1    | 963  | 16   | 3    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 7    | 11   | 0    | 2    | 0    | 33   |
| Mvmt Flow                | 593  | 12   | 1    | 1047 | 17   | 3    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |      |
|----------------------|--------|--------|--------|---|------|------|
| Conflicting Flow All | 0      | 0      | 605    | 0 | 1125 | 303  |
| Stage 1              | -      | -      | -      | - | 599  | -    |
| Stage 2              | -      | -      | -      | - | 526  | -    |
| Critical Hdwy        | -      | -      | 4.1    | - | 6.8  | 7.56 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.8  | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.8  | -    |
| Follow-up Hdwy       | -      | -      | 2.2    | - | 3.5  | 3.63 |
| Pot Cap-1 Maneuver   | -      | -      | 983    | - | 202  | 609  |
| Stage 1              | -      | -      | -      | - | 517  | -    |
| Stage 2              | -      | -      | -      | - | 563  | -    |
| Platoon blocked, %   | -      | -      | -      | - | -    | -    |
| Mov Cap-1 Maneuver   | -      | -      | 983    | - | 202  | 609  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 202  | -    |
| Stage 1              | -      | -      | -      | - | 517  | -    |
| Stage 2              | -      | -      | -      | - | 562  | -    |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 22.5 |
| HCM LOS              |    |    | C    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 226   | -   | -   | 983   | -   |
| HCM Lane V/C Ratio    | 0.091 | -   | -   | 0.001 | -   |
| HCM Control Delay (s) | 22.5  | -   | -   | 8.7   | 0   |
| HCM Lane LOS          | C     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.3   | -   | -   | 0     | -   |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 9.7    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     | ↑    | ↓      | ↑↑    | ↓      |      |
| Traffic Vol, veh/h       | 492    | 83   | 49     | 930   | 97     | 65   |
| Future Vol, veh/h        | 492    | 83   | 49     | 930   | 97     | 65   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 83     | 83   | 83     | 83    | 83     | 83   |
| Heavy Vehicles, %        | 4      | 3    | 3      | 2     | 9      | 10   |
| Mvmt Flow                | 593    | 100  | 59     | 1120  | 117    | 78   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 693    | 0     | 1271   | 297  |
| Stage 1                  | -      | -    | -      | -     | 593    | -    |
| Stage 2                  | -      | -    | -      | -     | 678    | -    |
| Critical Hdwy            | -      | -    | 4.16   | -     | 6.98   | 7.1  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.98   | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.98   | -    |
| Follow-up Hdwy           | -      | -    | 2.23   | -     | 3.59   | 3.4  |
| Pot Cap-1 Maneuver       | -      | -    | 891    | -     | 150    | 676  |
| Stage 1                  | -      | -    | -      | -     | 496    | -    |
| Stage 2                  | -      | -    | -      | -     | 447    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 891    | -     | 140    | 676  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 140    | -    |
| Stage 1                  | -      | -    | -      | -     | 496    | -    |
| Stage 2                  | -      | -    | -      | -     | 417    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.5    |       | 99.2   |      |
| HCM LOS                  |        |      |        |       | F      |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 205    | -    | -      | 891   | -      |      |
| HCM Lane V/C Ratio       | 0.952  | -    | -      | 0.066 | -      |      |
| HCM Control Delay (s)    | 99.2   | -    | -      | 9.3   | -      |      |
| HCM Lane LOS             | F      | -    | -      | A     | -      |      |
| HCM 95th %tile Q(veh)    | 8      | -    | -      | 0.2   | -      |      |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 2.8                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |  |  |  |  |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 35                                                                                | 528                                                                               | 3                                                                                 | 24                                                                                | 999                                                                               | 5                                                                                 | 3    | 0                                                                                 | 34   | 14   | 1                                                                                   | 116  |
| Future Vol, veh/h        | 35                                                                                | 528                                                                               | 3                                                                                 | 24                                                                                | 999                                                                               | 5                                                                                 | 3    | 0                                                                                 | 34   | 14   | 1                                                                                   | 116  |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None                                                                              | -    | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90   | 90                                                                                | 90   | 90   | 90                                                                                  | 90   |
| Heavy Vehicles, %        | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Mvmt Flow                | 39                                                                                | 587                                                                               | 3                                                                                 | 27                                                                                | 1110                                                                              | 6                                                                                 | 3    | 0                                                                                 | 38   | 16   | 1                                                                                   | 129  |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |     |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|-----|
| Conflicting Flow All | 1116   | 0 | 0 | 590    | 0 | 0 | 1275   | 1835 | 294 | 1539   | 1835 | 558 |
| Stage 1              | -      | - | - | -      | - | - | 665    | 665  | -   | 1167   | 1167 | -   |
| Stage 2              | -      | - | - | -      | - | - | 610    | 1170 | -   | 372    | 668  | -   |
| Critical Hdwy        | 4.1    | - | - | 4.2    | - | - | 7.5    | 6.5  | 6.9 | 7.5    | 6.5  | 6.9 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Follow-up Hdwy       | 2.2    | - | - | 2.25   | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3 |
| Pot Cap-1 Maneuver   | 633    | - | - | 961    | - | - | 126    | 77   | 708 | 80     | 77   | 478 |
| Stage 1              | -      | - | - | -      | - | - | 420    | 461  | -   | 209    | 270  | -   |
| Stage 2              | -      | - | - | -      | - | - | 453    | 269  | -   | 626    | 459  | -   |
| Platoon blocked, %   |        | - | - |        | - | - |        |      |     |        |      |     |
| Mov Cap-1 Maneuver   | 633    | - | - | 961    | - | - | 85     | 70   | 708 | 71     | 70   | 478 |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 85     | 70   | -   | 71     | 70   | -   |
| Stage 1              | -      | - | - | -      | - | - | 394    | 432  | -   | 196    | 262  | -   |
| Stage 2              | -      | - | - | -      | - | - | 320    | 261  | -   | 556    | 431  | -   |

| Approach             | EB  |  |  | WB  |  |  | NB   |  |  | SB   |  |  |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.7 |  |  | 0.2 |  |  | 13.9 |  |  | 29.6 |  |  |
| HCM LOS              |     |  |  |     |  |  | B    |  |  | D    |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 444   | 633   | -   | -   | 961   | -   | -   | 288   |
| HCM Lane V/C Ratio    | 0.093 | 0.061 | -   | -   | 0.028 | -   | -   | 0.505 |
| HCM Control Delay (s) | 13.9  | 11.1  | -   | -   | 8.9   | -   | -   | 29.6  |
| HCM Lane LOS          | B     | B     | -   | -   | A     | -   | -   | D     |
| HCM 95th %tile Q(veh) | 0.3   | 0.2   | -   | -   | 0.1   | -   | -   | 2.7   |

| Intersection             |        |      |        |      |        |      |
|--------------------------|--------|------|--------|------|--------|------|
| Int Delay, s/veh         | 0.3    |      |        |      |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT  | NBL    | NBR  |
| Lane Configurations      | ↑↑     |      |        | ↑↑   | ↑      |      |
| Traffic Vol, veh/h       | 1097   | 16   | 0      | 492  | 9      | 0    |
| Future Vol, veh/h        | 1097   | 16   | 0      | 492  | 9      | 0    |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0    | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free | Stop   | Stop |
| RT Channelized           | -      | None | -      | None | -      | None |
| Storage Length           | -      | -    | -      | -    | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0    | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0    | 0      | -    |
| Peak Hour Factor         | 90     | 90   | 90     | 90   | 90     | 90   |
| Heavy Vehicles, %        | 1      | 8    | 2      | 1    | 14     | 2    |
| Mvmt Flow                | 1219   | 18   | 0      | 547  | 10     | 0    |
|                          |        |      |        |      |        |      |
| Major/Minor              | Major1 |      | Major2 |      | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1237   | 0    | 1502   | 619  |
| Stage 1                  | -      | -    | -      | -    | 1228   | -    |
| Stage 2                  | -      | -    | -      | -    | 274    | -    |
| Critical Hdwy            | -      | -    | 4.14   | -    | 7.08   | 6.94 |
| Critical Hdwy Stg 1      | -      | -    | -      | -    | 6.08   | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -    | 6.08   | -    |
| Follow-up Hdwy           | -      | -    | 2.22   | -    | 3.64   | 3.32 |
| Pot Cap-1 Maneuver       | -      | -    | 559    | -    | 100    | 432  |
| Stage 1                  | -      | -    | -      | -    | 217    | -    |
| Stage 2                  | -      | -    | -      | -    | 713    | -    |
| Platoon blocked, %       | -      | -    |        | -    |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 559    | -    | 100    | 432  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -    | 100    | -    |
| Stage 1                  | -      | -    | -      | -    | 217    | -    |
| Stage 2                  | -      | -    | -      | -    | 713    | -    |
|                          |        |      |        |      |        |      |
|                          |        |      |        |      |        |      |
| Approach                 | EB     |      | WB     |      | NB     |      |
| HCM Control Delay, s     | 0      |      | 0      |      | 45     |      |
| HCM LOS                  |        |      |        |      | E      |      |
|                          |        |      |        |      |        |      |
|                          |        |      |        |      |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL  | WBT    |      |
| Capacity (veh/h)         | 100    | -    | -      | 559  | -      |      |
| HCM Lane V/C Ratio       | 0.1    | -    | -      | -    | -      |      |
| HCM Control Delay (s)    | 45     | -    | -      | 0    | -      |      |
| HCM Lane LOS             | E      | -    | -      | A    | -      |      |
| HCM 95th %tile Q(veh)    | 0.3    | -    | -      | 0    | -      |      |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 1.1    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     | ↗    | ↖      | ↑↑    | ↘      |      |
| Traffic Vol, veh/h       | 1100   | 27   | 3      | 498   | 33     | 13   |
| Future Vol, veh/h        | 1100   | 27   | 3      | 498   | 33     | 13   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1196   | 29   | 3      | 541   | 36     | 14   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1225   | 0     | 1473   | 598  |
| Stage 1                  | -      | -    | -      | -     | 1196   | -    |
| Stage 2                  | -      | -    | -      | -     | 277    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 6.9  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 576    | -     | 120    | 450  |
| Stage 1                  | -      | -    | -      | -     | 253    | -    |
| Stage 2                  | -      | -    | -      | -     | 751    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 576    | -     | 119    | 450  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 119    | -    |
| Stage 1                  | -      | -    | -      | -     | 253    | -    |
| Stage 2                  | -      | -    | -      | -     | 747    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.1    |       | 40.6   |      |
| HCM LOS                  | E      |      |        |       |        |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 150    | -    | -      | 576   | -      |      |
| HCM Lane V/C Ratio       | 0.333  | -    | -      | 0.006 | -      |      |
| HCM Control Delay (s)    | 40.6   | -    | -      | 11.3  | -      |      |
| HCM Lane LOS             | E      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 1.4    | -    | -      | 0     | -      |      |



| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|------|--------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 12.1                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL    | NBT                                                                               | NBR  | SBL    | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |  |  |  |      |        |  |      |        |  |      |
| Traffic Vol, veh/h       | 96                                                                                | 1023                                                                              | 41                                                                                | 22                                                                                | 508                                                                               | 1    | 24     | 7                                                                                 | 103  | 2      | 2                                                                                   | 65   |
| Future Vol, veh/h        | 96                                                                                | 1023                                                                              | 41                                                                                | 22                                                                                | 508                                                                               | 1    | 24     | 7                                                                                 | 103  | 2      | 2                                                                                   | 65   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0      | 0                                                                                 | 0    | 0      | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop   | Stop                                                                              | Stop | Stop   | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -      | -                                                                                 | None | -      | -                                                                                   | None |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -      | -                                                                                 | -    | -      | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -    | -      | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -    | -      | 0                                                                                   | -    |
| Peak Hour Factor         | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87   | 87     | 87                                                                                | 87   | 87     | 87                                                                                  | 87   |
| Heavy Vehicles, %        | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0    | 0      | 0                                                                                 | 0    | 0      | 0                                                                                   | 0    |
| Mvmt Flow                | 110                                                                               | 1176                                                                              | 47                                                                                | 25                                                                                | 584                                                                               | 1    | 28     | 8                                                                                 | 118  | 2      | 2                                                                                   | 75   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
| Major/Minor              | Major1                                                                            |                                                                                   |                                                                                   | Major2                                                                            |                                                                                   |      | Minor1 |                                                                                   |      | Minor2 |                                                                                     |      |
| Conflicting Flow All     | 585                                                                               | 0                                                                                 | 0                                                                                 | 1223                                                                              | 0                                                                                 | 0    | 1739   | 2031                                                                              | 588  | 1447   | 2078                                                                                | 293  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 1396   | 1396                                                                              | -    | 635    | 635                                                                                 | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 343    | 635                                                                               | -    | 812    | 1443                                                                                | -    |
| Critical Hdwy            | 4.12                                                                              | -                                                                                 | -                                                                                 | 4.1                                                                               | -                                                                                 | -    | 7.5    | 6.5                                                                               | 6.9  | 7.5    | 6.5                                                                                 | 6.9  |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.5    | 5.5                                                                               | -    | 6.5    | 5.5                                                                                 | -    |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.5    | 5.5                                                                               | -    | 6.5    | 5.5                                                                                 | -    |
| Follow-up Hdwy           | 2.21                                                                              | -                                                                                 | -                                                                                 | 2.2                                                                               | -                                                                                 | -    | 3.5    | 4                                                                                 | 3.3  | 3.5    | 4                                                                                   | 3.3  |
| Pot Cap-1 Maneuver       | 993                                                                               | -                                                                                 | -                                                                                 | 577                                                                               | -                                                                                 | -    | 57     | 58                                                                                | 457  | 94     | 54                                                                                  | 709  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 151    | 210                                                                               | -    | 438    | 476                                                                                 | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 651    | 476                                                                               | -    | 343    | 199                                                                                 | -    |
| Platoon blocked, %       |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 | -    |        |                                                                                   |      |        |                                                                                     |      |
| Mov Cap-1 Maneuver       | 993                                                                               | -                                                                                 | -                                                                                 | 577                                                                               | -                                                                                 | -    | 43     | 49                                                                                | 457  | 54     | 46                                                                                  | 709  |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 43     | 49                                                                                | -    | 54     | 46                                                                                  | -    |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 134    | 187                                                                               | -    | 389    | 456                                                                                 | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 554    | 456                                                                               | -    | 216    | 177                                                                                 | -    |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
| Approach                 | EB                                                                                |                                                                                   |                                                                                   | WB                                                                                |                                                                                   |      | NB     |                                                                                   |      | SB     |                                                                                     |      |
| HCM Control Delay, s     | 0.8                                                                               |                                                                                   |                                                                                   | 0.5                                                                               |                                                                                   |      | 153.7  |                                                                                   |      | 16.2   |                                                                                     |      |
| HCM LOS                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      | F      |                                                                                   |      | C      |                                                                                     |      |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT  | WBR    | SBLn1                                                                             |      |        |                                                                                     |      |
| Capacity (veh/h)         | 145                                                                               | 993                                                                               | -                                                                                 | -                                                                                 | 577                                                                               | -    | -      | 401                                                                               |      |        |                                                                                     |      |
| HCM Lane V/C Ratio       | 1.062                                                                             | 0.111                                                                             | -                                                                                 | -                                                                                 | 0.044                                                                             | -    | -      | 0.198                                                                             |      |        |                                                                                     |      |
| HCM Control Delay (s)    | 153.7                                                                             | 9.1                                                                               | -                                                                                 | -                                                                                 | 11.5                                                                              | -    | -      | 16.2                                                                              |      |        |                                                                                     |      |
| HCM Lane LOS             | F                                                                                 | A                                                                                 | -                                                                                 | -                                                                                 | B                                                                                 | -    | -      | C                                                                                 |      |        |                                                                                     |      |
| HCM 95th %tile Q(veh)    | 8.2                                                                               | 0.4                                                                               | -                                                                                 | -                                                                                 | 0.1                                                                               | -    | -      | 0.7                                                                               |      |        |                                                                                     |      |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑↑   |      |
| Traffic Vol, veh/h       | 589  | 12   | 1    | 1039 | 17   | 4    |
| Future Vol, veh/h        | 589  | 12   | 1    | 1039 | 17   | 4    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 7    | 11   | 0    | 2    | 0    | 33   |
| Mvmt Flow                | 640  | 13   | 1    | 1129 | 18   | 4    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |      |
|----------------------|--------|--------|--------|---|------|------|
| Conflicting Flow All | 0      | 0      | 653    | 0 | 1214 | 327  |
| Stage 1              | -      | -      | -      | - | 647  | -    |
| Stage 2              | -      | -      | -      | - | 567  | -    |
| Critical Hdwy        | -      | -      | 4.1    | - | 6.8  | 7.56 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.8  | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.8  | -    |
| Follow-up Hdwy       | -      | -      | 2.2    | - | 3.5  | 3.63 |
| Pot Cap-1 Maneuver   | -      | -      | 943    | - | 177  | 586  |
| Stage 1              | -      | -      | -      | - | 489  | -    |
| Stage 2              | -      | -      | -      | - | 537  | -    |
| Platoon blocked, %   | -      | -      | -      | - | -    | -    |
| Mov Cap-1 Maneuver   | -      | -      | 943    | - | 176  | 586  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 176  | -    |
| Stage 1              | -      | -      | -      | - | 489  | -    |
| Stage 2              | -      | -      | -      | - | 535  | -    |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 25 |
| HCM LOS              |    |    | D  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 203   | -   | -   | 943   | -   |
| HCM Lane V/C Ratio    | 0.112 | -   | -   | 0.001 | -   |
| HCM Control Delay (s) | 25    | -   | -   | 8.8   | 0   |
| HCM Lane LOS          | D     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.4   | -   | -   | 0     | -   |

| Intersection               |        |                        |        |                            |        |                                |
|----------------------------|--------|------------------------|--------|----------------------------|--------|--------------------------------|
| Int Delay, s/veh           | 17.4   |                        |        |                            |        |                                |
| Movement                   | EBT    | EBR                    | WBL    | WBT                        | NBL    | NBR                            |
| Lane Configurations        | ↑↑     | ↗                      | ↖      | ↑↑                         | ↘      |                                |
| Traffic Vol, veh/h         | 531    | 90                     | 53     | 1004                       | 105    | 70                             |
| Future Vol, veh/h          | 531    | 90                     | 53     | 1004                       | 105    | 70                             |
| Conflicting Peds, #/hr     | 0      | 0                      | 0      | 0                          | 0      | 0                              |
| Sign Control               | Free   | Free                   | Free   | Free                       | Stop   | Stop                           |
| RT Channelized             | -      | None                   | -      | None                       | -      | None                           |
| Storage Length             | -      | 200                    | 150    | -                          | 0      | -                              |
| Veh in Median Storage, #   | 0      | -                      | -      | 0                          | 0      | -                              |
| Grade, %                   | 0      | -                      | -      | 0                          | 0      | -                              |
| Peak Hour Factor           | 83     | 83                     | 83     | 83                         | 83     | 83                             |
| Heavy Vehicles, %          | 4      | 3                      | 3      | 2                          | 9      | 10                             |
| Mvmt Flow                  | 640    | 108                    | 64     | 1210                       | 127    | 84                             |
|                            |        |                        |        |                            |        |                                |
| Major/Minor                | Major1 |                        | Major2 |                            | Minor1 |                                |
| Conflicting Flow All       | 0      | 0                      | 748    | 0                          | 1373   | 320                            |
| Stage 1                    | -      | -                      | -      | -                          | 640    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 733    | -                              |
| Critical Hdwy              | -      | -                      | 4.16   | -                          | 6.98   | 7.1                            |
| Critical Hdwy Stg 1        | -      | -                      | -      | -                          | 5.98   | -                              |
| Critical Hdwy Stg 2        | -      | -                      | -      | -                          | 5.98   | -                              |
| Follow-up Hdwy             | -      | -                      | 2.23   | -                          | 3.59   | 3.4                            |
| Pot Cap-1 Maneuver         | -      | -                      | 850    | -                          | 129    | 653                            |
| Stage 1                    | -      | -                      | -      | -                          | 469    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 418    | -                              |
| Platoon blocked, %         | -      | -                      |        | -                          |        |                                |
| Mov Cap-1 Maneuver         | -      | -                      | 850    | - ~                        | 119    | 653                            |
| Mov Cap-2 Maneuver         | -      | -                      | -      | - ~                        | 119    | -                              |
| Stage 1                    | -      | -                      | -      | -                          | 469    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 387    | -                              |
|                            |        |                        |        |                            |        |                                |
| Approach                   | EB     |                        | WB     |                            | NB     |                                |
| HCM Control Delay, s       | 0      |                        | 0.5    |                            | 181.3  |                                |
| HCM LOS                    | F      |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Minor Lane/Major Mvmt      | NBLn1  | EBT                    | EBR    | WBL                        | WBT    |                                |
| Capacity (veh/h)           | 177    | -                      | -      | 850                        | -      |                                |
| HCM Lane V/C Ratio         | 1.191  | -                      | -      | 0.075                      | -      |                                |
| HCM Control Delay (s)      | 181.3  | -                      | -      | 9.6                        | -      |                                |
| HCM Lane LOS               | F      | -                      | -      | A                          | -      |                                |
| HCM 95th %tile Q(veh)      | 11.3   | -                      | -      | 0.2                        | -      |                                |
| Notes                      |        |                        |        |                            |        |                                |
| ~: Volume exceeds capacity |        | \$: Delay exceeds 300s |        | +: Computation Not Defined |        | *: All major volume in platoon |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|------|--------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 3.7                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL    | NBT                                                                               | NBR  | SBL    | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |  |  |  |      |        |  |      |        |  |      |
| Traffic Vol, veh/h       | 38                                                                                | 569                                                                               | 4                                                                                 | 26                                                                                | 1077                                                                              | 5    | 4      | 0                                                                                 | 37   | 15     | 1                                                                                   | 125  |
| Future Vol, veh/h        | 38                                                                                | 569                                                                               | 4                                                                                 | 26                                                                                | 1077                                                                              | 5    | 4      | 0                                                                                 | 37   | 15     | 1                                                                                   | 125  |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0      | 0                                                                                 | 0    | 0      | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop   | Stop                                                                              | Stop | Stop   | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -      | -                                                                                 | None | -      | -                                                                                   | None |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -      | -                                                                                 | -    | -      | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -    | -      | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -    | -      | 0                                                                                   | -    |
| Peak Hour Factor         | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90   | 90     | 90                                                                                | 90   | 90     | 90                                                                                  | 90   |
| Heavy Vehicles, %        | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0    | 0      | 0                                                                                 | 0    | 0      | 0                                                                                   | 0    |
| Mvmt Flow                | 42                                                                                | 632                                                                               | 4                                                                                 | 29                                                                                | 1197                                                                              | 6    | 4      | 0                                                                                 | 41   | 17     | 1                                                                                   | 139  |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
| Major/Minor              | Major1                                                                            |                                                                                   |                                                                                   | Major2                                                                            |                                                                                   |      | Minor1 |                                                                                   |      | Minor2 |                                                                                     |      |
| Conflicting Flow All     | 1203                                                                              | 0                                                                                 | 0                                                                                 | 636                                                                               | 0                                                                                 | 0    | 1373   | 1977                                                                              | 316  | 1658   | 1978                                                                                | 602  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 716    | 716                                                                               | -    | 1258   | 1258                                                                                | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 657    | 1261                                                                              | -    | 400    | 720                                                                                 | -    |
| Critical Hdwy            | 4.1                                                                               | -                                                                                 | -                                                                                 | 4.2                                                                               | -                                                                                 | -    | 7.5    | 6.5                                                                               | 6.9  | 7.5    | 6.5                                                                                 | 6.9  |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.5    | 5.5                                                                               | -    | 6.5    | 5.5                                                                                 | -    |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.5    | 5.5                                                                               | -    | 6.5    | 5.5                                                                                 | -    |
| Follow-up Hdwy           | 2.2                                                                               | -                                                                                 | -                                                                                 | 2.25                                                                              | -                                                                                 | -    | 3.5    | 4                                                                                 | 3.3  | 3.5    | 4                                                                                   | 3.3  |
| Pot Cap-1 Maneuver       | 587                                                                               | -                                                                                 | -                                                                                 | 923                                                                               | -                                                                                 | -    | 107    | 63                                                                                | 686  | 65     | 63                                                                                  | 448  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 392    | 437                                                                               | -    | 184    | 245                                                                                 | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 425    | 244                                                                               | -    | 603    | 435                                                                                 | -    |
| Platoon blocked, %       |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 | -    |        |                                                                                   |      |        |                                                                                     |      |
| Mov Cap-1 Maneuver       | 587                                                                               | -                                                                                 | -                                                                                 | 923                                                                               | -                                                                                 | -    | 67     | 57                                                                                | 686  | 56     | 57                                                                                  | 448  |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 67     | 57                                                                                | -    | 56     | 57                                                                                  | -    |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 364    | 406                                                                               | -    | 171    | 237                                                                                 | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 283    | 236                                                                               | -    | 526    | 404                                                                                 | -    |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
| Approach                 | EB                                                                                |                                                                                   |                                                                                   | WB                                                                                |                                                                                   |      | NB     |                                                                                   |      | SB     |                                                                                     |      |
| HCM Control Delay, s     | 0.7                                                                               |                                                                                   |                                                                                   | 0.2                                                                               |                                                                                   |      | 16.4   |                                                                                   |      | 40.8   |                                                                                     |      |
| HCM LOS                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      | C      |                                                                                   |      | E      |                                                                                     |      |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT  | WBR    | SBLn1                                                                             |      |        |                                                                                     |      |
| Capacity (veh/h)         | 361                                                                               | 587                                                                               | -                                                                                 | -                                                                                 | 923                                                                               | -    | -      | 250                                                                               |      |        |                                                                                     |      |
| HCM Lane V/C Ratio       | 0.126                                                                             | 0.072                                                                             | -                                                                                 | -                                                                                 | 0.031                                                                             | -    | -      | 0.627                                                                             |      |        |                                                                                     |      |
| HCM Control Delay (s)    | 16.4                                                                              | 11.6                                                                              | -                                                                                 | -                                                                                 | 9                                                                                 | -    | -      | 40.8                                                                              |      |        |                                                                                     |      |
| HCM Lane LOS             | C                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 | A                                                                                 | -    | -      | E                                                                                 |      |        |                                                                                     |      |
| HCM 95th %tile Q(veh)    | 0.4                                                                               | 0.2                                                                               | -                                                                                 | -                                                                                 | 0.1                                                                               | -    | -      | 3.8                                                                               |      |        |                                                                                     |      |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑↑   |      |
| Traffic Vol, veh/h       | 1183 | 17   | 0    | 531  | 10   | 0    |
| Future Vol, veh/h        | 1183 | 17   | 0    | 531  | 10   | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 90   | 90   | 90   | 90   | 90   | 90   |
| Heavy Vehicles, %        | 1    | 8    | 2    | 1    | 14   | 2    |
| Mvmt Flow                | 1314 | 19   | 0    | 590  | 11   | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1333   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.14   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.22   |
| Pot Cap-1 Maneuver   | -      | -      | 513    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 513    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 55 |
| HCM LOS              |    |    | F  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 83    | -   | -   | 513 | -   |
| HCM Lane V/C Ratio    | 0.134 | -   | -   | -   | -   |
| HCM Control Delay (s) | 55    | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.4   | -   | -   | 0   | -   |



| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 1.5    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     | ↗    | ↖      | ↑↑    | ↘      |      |
| Traffic Vol, veh/h       | 1187   | 30   | 4      | 538   | 36     | 14   |
| Future Vol, veh/h        | 1187   | 30   | 4      | 538   | 36     | 14   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1290   | 33   | 4      | 585   | 39     | 15   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1323   | 0     | 1591   | 645  |
| Stage 1                  | -      | -    | -      | -     | 1290   | -    |
| Stage 2                  | -      | -    | -      | -     | 301    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 6.9  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 529    | -     | 100    | 420  |
| Stage 1                  | -      | -    | -      | -     | 226    | -    |
| Stage 2                  | -      | -    | -      | -     | 731    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 529    | -     | 99     | 420  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 99     | -    |
| Stage 1                  | -      | -    | -      | -     | 226    | -    |
| Stage 2                  | -      | -    | -      | -     | 725    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.1    |       | 53.7   |      |
| HCM LOS                  |        |      |        |       | F      |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 126    | -    | -      | 529   | -      |      |
| HCM Lane V/C Ratio       | 0.431  | -    | -      | 0.008 | -      |      |
| HCM Control Delay (s)    | 53.7   | -    | -      | 11.9  | -      |      |
| HCM Lane LOS             | F      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 1.9    | -    | -      | 0     | -      |      |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 22.3                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |  |  |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 103                                                                               | 1103                                                                              | 44                                                                                | 23                                                                                | 549                                                                               | 1    | 26   | 7                                                                                 | 111  | 2    | 2                                                                                   | 70   |
| Future Vol, veh/h        | 103                                                                               | 1103                                                                              | 44                                                                                | 23                                                                                | 549                                                                               | 1    | 26   | 7                                                                                 | 111  | 2    | 2                                                                                   | 70   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87   | 87   | 87                                                                                | 87   | 87   | 87                                                                                  | 87   |
| Heavy Vehicles, %        | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Mvmt Flow                | 118                                                                               | 1268                                                                              | 51                                                                                | 26                                                                                | 631                                                                               | 1    | 30   | 8                                                                                 | 128  | 2    | 2                                                                                   | 80   |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |     |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|-----|
| Conflicting Flow All | 632    | 0 | 0 | 1319   | 0 | 0 | 1873   | 2188 | 634 | 1558   | 2239 | 316 |
| Stage 1              | -      | - | - | -      | - | - | 1504   | 1504 | -   | 684    | 684  | -   |
| Stage 2              | -      | - | - | -      | - | - | 369    | 684  | -   | 874    | 1555 | -   |
| Critical Hdwy        | 4.12   | - | - | 4.1    | - | - | 7.5    | 6.5  | 6.9 | 7.5    | 6.5  | 6.9 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Follow-up Hdwy       | 2.21   | - | - | 2.2    | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3 |
| Pot Cap-1 Maneuver   | 953    | - | - | 531    | - | - | 45     | 46   | 427 | 78     | 43   | 686 |
| Stage 1              | -      | - | - | -      | - | - | 130    | 186  | -   | 410    | 452  | -   |
| Stage 2              | -      | - | - | -      | - | - | 629    | 452  | -   | 315    | 176  | -   |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -   | -      | -    | -   |
| Mov Cap-1 Maneuver   | 953    | - | - | 531    | - | - | 33     | 38   | 427 | 40     | 36   | 686 |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 33     | 38   | -   | 40     | 36   | -   |
| Stage 1              | -      | - | - | -      | - | - | 114    | 163  | -   | 359    | 430  | -   |
| Stage 2              | -      | - | - | -      | - | - | 525    | 430  | -   | 184    | 154  | -   |

| Approach             | EB  |  |  | WB  |  |  | NB    |  |  | SB   |  |  |
|----------------------|-----|--|--|-----|--|--|-------|--|--|------|--|--|
| HCM Control Delay, s | 0.8 |  |  | 0.5 |  |  | 297.3 |  |  | 18.3 |  |  |
| HCM LOS              |     |  |  |     |  |  | F     |  |  | C    |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL  | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|------|-----|-----|-------|
| Capacity (veh/h)      | 117   | 953   | -   | -   | 531  | -   | -   | 356   |
| HCM Lane V/C Ratio    | 1.415 | 0.124 | -   | -   | 0.05 | -   | -   | 0.239 |
| HCM Control Delay (s) | 297.3 | 9.3   | -   | -   | 12.1 | -   | -   | 18.3  |
| HCM Lane LOS          | F     | A     | -   | -   | B    | -   | -   | C     |
| HCM 95th %tile Q(veh) | 11.5  | 0.4   | -   | -   | 0.2  | -   | -   | 0.9   |

**BUILD**

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑↑   |      |
| Traffic Vol, veh/h       | 693  | 11   | 1    | 958  | 15   | 3    |
| Future Vol, veh/h        | 693  | 11   | 1    | 958  | 15   | 3    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 7    | 11   | 0    | 2    | 0    | 33   |
| Mvmt Flow                | 753  | 12   | 1    | 1041 | 16   | 3    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |      |
|----------------------|--------|--------|--------|---|------|------|
| Conflicting Flow All | 0      | 0      | 765    | 0 | 1282 | 383  |
| Stage 1              | -      | -      | -      | - | 759  | -    |
| Stage 2              | -      | -      | -      | - | 523  | -    |
| Critical Hdwy        | -      | -      | 4.1    | - | 6.8  | 7.56 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.8  | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.8  | -    |
| Follow-up Hdwy       | -      | -      | 2.2    | - | 3.5  | 3.63 |
| Pot Cap-1 Maneuver   | -      | -      | 857    | - | 160  | 535  |
| Stage 1              | -      | -      | -      | - | 428  | -    |
| Stage 2              | -      | -      | -      | - | 565  | -    |
| Platoon blocked, %   | -      | -      | -      | - | -    | -    |
| Mov Cap-1 Maneuver   | -      | -      | 857    | - | 160  | 535  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 160  | -    |
| Stage 1              | -      | -      | -      | - | 428  | -    |
| Stage 2              | -      | -      | -      | - | 563  | -    |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 27.3 |
| HCM LOS              |    |    | D    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 181   | -   | -   | 857   | -   |
| HCM Lane V/C Ratio    | 0.108 | -   | -   | 0.001 | -   |
| HCM Control Delay (s) | 27.3  | -   | -   | 9.2   | 0   |
| HCM Lane LOS          | D     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.4   | -   | -   | 0     | -   |

| Intersection               |        |                        |        |                            |        |                                |
|----------------------------|--------|------------------------|--------|----------------------------|--------|--------------------------------|
| Int Delay, s/veh           | 16.8   |                        |        |                            |        |                                |
| Movement                   | EBT    | EBR                    | WBL    | WBT                        | NBL    | NBR                            |
| Lane Configurations        | ↑↑     | ↗                      | ↖      | ↑↑                         | ↘      |                                |
| Traffic Vol, veh/h         | 516    | 77                     | 82     | 1039                       | 90     | 72                             |
| Future Vol, veh/h          | 516    | 77                     | 82     | 1039                       | 90     | 72                             |
| Conflicting Peds, #/hr     | 0      | 0                      | 0      | 0                          | 0      | 0                              |
| Sign Control               | Free   | Free                   | Free   | Free                       | Stop   | Stop                           |
| RT Channelized             | -      | None                   | -      | None                       | -      | None                           |
| Storage Length             | -      | 200                    | 150    | -                          | 0      | -                              |
| Veh in Median Storage, #   | 0      | -                      | -      | 0                          | 0      | -                              |
| Grade, %                   | 0      | -                      | -      | 0                          | 0      | -                              |
| Peak Hour Factor           | 83     | 83                     | 83     | 83                         | 83     | 83                             |
| Heavy Vehicles, %          | 4      | 3                      | 3      | 2                          | 9      | 10                             |
| Mvmt Flow                  | 622    | 93                     | 99     | 1252                       | 108    | 87                             |
|                            |        |                        |        |                            |        |                                |
| Major/Minor                | Major1 |                        | Major2 |                            | Minor1 |                                |
| Conflicting Flow All       | 0      | 0                      | 715    | 0                          | 1446   | 311                            |
| Stage 1                    | -      | -                      | -      | -                          | 622    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 824    | -                              |
| Critical Hdwy              | -      | -                      | 4.16   | -                          | 6.98   | 7.1                            |
| Critical Hdwy Stg 1        | -      | -                      | -      | -                          | 5.98   | -                              |
| Critical Hdwy Stg 2        | -      | -                      | -      | -                          | 5.98   | -                              |
| Follow-up Hdwy             | -      | -                      | 2.23   | -                          | 3.59   | 3.4                            |
| Pot Cap-1 Maneuver         | -      | -                      | 875    | -                          | 115    | 662                            |
| Stage 1                    | -      | -                      | -      | -                          | 479    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 374    | -                              |
| Platoon blocked, %         | -      | -                      |        | -                          |        |                                |
| Mov Cap-1 Maneuver         | -      | -                      | 875    | - ~ 102                    | 662    |                                |
| Mov Cap-2 Maneuver         | -      | -                      | -      | - ~ 102                    | -      |                                |
| Stage 1                    | -      | -                      | -      | -                          | 479    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 332    | -                              |
|                            |        |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Approach                   | EB     |                        | WB     |                            | NB     |                                |
| HCM Control Delay, s       | 0      |                        | 0.7    |                            | 189.3  |                                |
| HCM LOS                    |        |                        |        |                            | F      |                                |
|                            |        |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Minor Lane/Major Mvmt      | NBLn1  | EBT                    | EBR    | WBL                        | WBT    |                                |
| Capacity (veh/h)           | 163    | -                      | -      | 875                        | -      |                                |
| HCM Lane V/C Ratio         | 1.197  | -                      | -      | 0.113                      | -      |                                |
| HCM Control Delay (s)      | 189.3  | -                      | -      | 9.6                        | -      |                                |
| HCM Lane LOS               | F      | -                      | -      | A                          | -      |                                |
| HCM 95th %tile Q(veh)      | 10.8   | -                      | -      | 0.4                        | -      |                                |
| Notes                      |        |                        |        |                            |        |                                |
| ~: Volume exceeds capacity |        | \$: Delay exceeds 300s |        | +: Computation Not Defined |        | *: All major volume in platoon |



| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 3.1                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |      |  |      |      |  |  |
| Traffic Vol, veh/h       | 33                                                                                | 546                                                                               | 3                                                                                 | 28                                                                                | 1095                                                                              | 6                                                                                 | 3    | 0                                                                                 | 34   | 14   | 1                                                                                 | 108                                                                               |
| Future Vol, veh/h        | 33                                                                                | 546                                                                               | 3                                                                                 | 28                                                                                | 1095                                                                              | 6                                                                                 | 3    | 0                                                                                 | 34   | 14   | 1                                                                                 | 108                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop | Stop                                                                              | Stop | Stop | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None                                                                              | -    | -                                                                                 | None | -    | -                                                                                 | None                                                                              |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 | -                                                                                 |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90   | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                |
| Heavy Vehicles, %        | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                | 37                                                                                | 607                                                                               | 3                                                                                 | 31                                                                                | 1217                                                                              | 7                                                                                 | 3    | 0                                                                                 | 38   | 16   | 1                                                                                 | 120                                                                               |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |     |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|-----|
| Conflicting Flow All | 1224   | 0 | 0 | 610    | 0 | 0 | 1352   | 1967 | 304 | 1661   | 1967 | 612 |
| Stage 1              | -      | - | - | -      | - | - | 681    | 681  | -   | 1283   | 1283 | -   |
| Stage 2              | -      | - | - | -      | - | - | 671    | 1286 | -   | 378    | 684  | -   |
| Critical Hdwy        | 4.1    | - | - | 4.2    | - | - | 7.5    | 6.5  | 6.9 | 7.5    | 6.5  | 6.9 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Follow-up Hdwy       | 2.2    | - | - | 2.25   | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3 |
| Pot Cap-1 Maneuver   | 577    | - | - | 945    | - | - | 111    | 64   | 698 | 65     | 64   | 441 |
| Stage 1              | -      | - | - | -      | - | - | 411    | 453  | -   | 178    | 238  | -   |
| Stage 2              | -      | - | - | -      | - | - | 417    | 237  | -   | 621    | 452  | -   |
| Platoon blocked, %   |        | - | - |        | - | - |        |      |     |        |      |     |
| Mov Cap-1 Maneuver   | 577    | - | - | 945    | - | - | 74     | 58   | 698 | 57     | 58   | 441 |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 74     | 58   | -   | 57     | 58   | -   |
| Stage 1              | -      | - | - | -      | - | - | 385    | 424  | -   | 167    | 230  | -   |
| Stage 2              | -      | - | - | -      | - | - | 292    | 229  | -   | 550    | 423  | -   |

| Approach             | EB  |  |  | WB  |  |  | NB   |  |  | SB   |  |  |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.7 |  |  | 0.2 |  |  | 14.6 |  |  | 37.6 |  |  |
| HCM LOS              |     |  |  |     |  |  | B    |  |  | E    |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 415   | 577   | -   | -   | 945   | -   | -   | 242   |
| HCM Lane V/C Ratio    | 0.099 | 0.064 | -   | -   | 0.033 | -   | -   | 0.565 |
| HCM Control Delay (s) | 14.6  | 11.7  | -   | -   | 8.9   | -   | -   | 37.6  |
| HCM Lane LOS          | B     | B     | -   | -   | A     | -   | -   | E     |
| HCM 95th %tile Q(veh) | 0.3   | 0.2   | -   | -   | 0.1   | -   | -   | 3.1   |

| Intersection               |          |                        |      |                            |      |                                |
|----------------------------|----------|------------------------|------|----------------------------|------|--------------------------------|
| Int Delay, s/veh           | 92.1     |                        |      |                            |      |                                |
| Movement                   | EBT      | EBR                    | WBL  | WBT                        | NBL  | NBR                            |
| Lane Configurations        | ↑↑       |                        |      | ↑↑                         | ↑↑   |                                |
| Traffic Vol, veh/h         | 518      | 70                     | 62   | 911                        | 210  | 185                            |
| Future Vol, veh/h          | 518      | 70                     | 62   | 911                        | 210  | 185                            |
| Conflicting Peds, #/hr     | 0        | 0                      | 0    | 0                          | 0    | 0                              |
| Sign Control               | Free     | Free                   | Free | Free                       | Stop | Stop                           |
| RT Channelized             | -        | None                   | -    | None                       | -    | None                           |
| Storage Length             | -        | -                      | -    | -                          | 0    | -                              |
| Veh in Median Storage, #   | 0        | -                      | -    | 0                          | 0    | -                              |
| Grade, %                   | 0        | -                      | -    | 0                          | 0    | -                              |
| Peak Hour Factor           | 92       | 92                     | 92   | 92                         | 92   | 92                             |
| Heavy Vehicles, %          | 2        | 2                      | 2    | 2                          | 2    | 2                              |
| Mvmt Flow                  | 563      | 76                     | 67   | 990                        | 228  | 201                            |
|                            |          |                        |      |                            |      |                                |
| Major/Minor                | Major1   | Major2                 |      | Minor1                     |      |                                |
| Conflicting Flow All       | 0        | 0                      | 639  | 0                          | 1230 | 320                            |
| Stage 1                    | -        | -                      | -    | -                          | 601  | -                              |
| Stage 2                    | -        | -                      | -    | -                          | 629  | -                              |
| Critical Hdwy              | -        | -                      | 4.14 | -                          | 6.84 | 6.94                           |
| Critical Hdwy Stg 1        | -        | -                      | -    | -                          | 5.84 | -                              |
| Critical Hdwy Stg 2        | -        | -                      | -    | -                          | 5.84 | -                              |
| Follow-up Hdwy             | -        | -                      | 2.22 | -                          | 3.52 | 3.32                           |
| Pot Cap-1 Maneuver         | -        | -                      | 941  | - ~                        | 170  | 676                            |
| Stage 1                    | -        | -                      | -    | -                          | 510  | -                              |
| Stage 2                    | -        | -                      | -    | -                          | 494  | -                              |
| Platoon blocked, %         | -        | -                      |      | -                          |      |                                |
| Mov Cap-1 Maneuver         | -        | -                      | 941  | - ~                        | 143  | 676                            |
| Mov Cap-2 Maneuver         | -        | -                      | -    | - ~                        | 143  | -                              |
| Stage 1                    | -        | -                      | -    | -                          | 510  | -                              |
| Stage 2                    | -        | -                      | -    | -                          | 416  | -                              |
|                            |          |                        |      |                            |      |                                |
|                            |          |                        |      |                            |      |                                |
| Approach                   | EB       | WB                     |      | NB                         |      |                                |
| HCM Control Delay, s       | 0        | 1.1                    |      | \$ 453.2                   |      |                                |
| HCM LOS                    | F        |                        |      |                            |      |                                |
|                            |          |                        |      |                            |      |                                |
|                            |          |                        |      |                            |      |                                |
| Minor Lane/Major Mvmt      | NBLn1    | EBT                    | EBR  | WBL                        | WBT  |                                |
| Capacity (veh/h)           | 227      | -                      | -    | 941                        | -    |                                |
| HCM Lane V/C Ratio         | 1.891    | -                      | -    | 0.072                      | -    |                                |
| HCM Control Delay (s)      | \$ 453.2 | -                      | -    | 9.1                        | 0.6  |                                |
| HCM Lane LOS               | F        | -                      | -    | A                          | A    |                                |
| HCM 95th %tile Q(veh)      | 30.6     | -                      | -    | 0.2                        | -    |                                |
| Notes                      |          |                        |      |                            |      |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |      | +: Computation Not Defined |      | *: All major volume in platoon |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.2  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑    |      |
| Traffic Vol, veh/h       | 1144 | 15   | 0    | 666  | 8    | 0    |
| Future Vol, veh/h        | 1144 | 15   | 0    | 666  | 8    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 90   | 90   | 90   | 90   | 90   | 90   |
| Heavy Vehicles, %        | 1    | 8    | 2    | 1    | 14   | 2    |
| Mvmt Flow                | 1271 | 17   | 0    | 740  | 9    | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1288   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.14   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.22   |
| Pot Cap-1 Maneuver   | -      | -      | 534    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 534    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 56.3 |
| HCM LOS              |    |    | F    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 79    | -   | -   | 534 | -   |
| HCM Lane V/C Ratio    | 0.113 | -   | -   | -   | -   |
| HCM Control Delay (s) | 56.3  | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.4   | -   | -   | 0   | -   |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 2.4    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     | ↗    | ↘      | ↑↑    | ↘↗     |      |
| Traffic Vol, veh/h       | 1219   | 25   | 27     | 580   | 31     | 52   |
| Future Vol, veh/h        | 1219   | 25   | 27     | 580   | 31     | 52   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1325   | 27   | 29     | 630   | 34     | 57   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1352   | 0     | 1698   | 663  |
| Stage 1                  | -      | -    | -      | -     | 1325   | -    |
| Stage 2                  | -      | -    | -      | -     | 373    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 6.9  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 516    | -     | 85     | 409  |
| Stage 1                  | -      | -    | -      | -     | 216    | -    |
| Stage 2                  | -      | -    | -      | -     | 672    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 516    | -     | 80     | 409  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 80     | -    |
| Stage 1                  | -      | -    | -      | -     | 216    | -    |
| Stage 2                  | -      | -    | -      | -     | 634    | -    |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.6    |       | 52.6   |      |
| HCM LOS                  | F      |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 161    | -    | -      | 516   | -      |      |
| HCM Lane V/C Ratio       | 0.56   | -    | -      | 0.057 | -      |      |
| HCM Control Delay (s)    | 52.6   | -    | -      | 12.4  | -      |      |
| HCM Lane LOS             | F      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 2.9    | -    | -      | 0.2   | -      |      |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 16.4                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |      |                                                                                   |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                               | SBR  |
| Lane Configurations      |  |  |  |  |  |  |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 89                                                                                | 1138                                                                              | 38                                                                                | 24                                                                                | 584                                                                               | 3                                                                                 | 22   | 6                                                                                 | 102  | 4    | 2                                                                                 | 60   |
| Future Vol, veh/h        | 89                                                                                | 1138                                                                              | 38                                                                                | 24                                                                                | 584                                                                               | 3                                                                                 | 22   | 6                                                                                 | 102  | 4    | 2                                                                                 | 60   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop | Stop                                                                              | Stop | Stop | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None                                                                              | -    | -                                                                                 | None | -    | -                                                                                 | None |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 | -    |
| Peak Hour Factor         | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87   | 87                                                                                | 87   | 87   | 87                                                                                | 87   |
| Heavy Vehicles, %        | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0    |
| Mvmt Flow                | 102                                                                               | 1308                                                                              | 44                                                                                | 28                                                                                | 671                                                                               | 3                                                                                 | 25   | 7                                                                                 | 117  | 5    | 2                                                                                 | 69   |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |     |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|-----|
| Conflicting Flow All | 674    | 0 | 0 | 1352   | 0 | 0 | 1905   | 2242 | 654 | 1591   | 2285 | 337 |
| Stage 1              | -      | - | - | -      | - | - | 1512   | 1512 | -   | 729    | 729  | -   |
| Stage 2              | -      | - | - | -      | - | - | 393    | 730  | -   | 862    | 1556 | -   |
| Critical Hdwy        | 4.12   | - | - | 4.1    | - | - | 7.5    | 6.5  | 6.9 | 7.5    | 6.5  | 6.9 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Follow-up Hdwy       | 2.21   | - | - | 2.2    | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3 |
| Pot Cap-1 Maneuver   | 920    | - | - | 516    | - | - | 43     | 43   | 414 | 73     | 40   | 665 |
| Stage 1              | -      | - | - | -      | - | - | 128    | 184  | -   | 385    | 431  | -   |
| Stage 2              | -      | - | - | -      | - | - | 609    | 431  | -   | 320    | 176  | -   |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -   | -      | -    | -   |
| Mov Cap-1 Maneuver   | 920    | - | - | 516    | - | - | 32     | 36   | 414 | 39     | 34   | 665 |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 32     | 36   | -   | 39     | 34   | -   |
| Stage 1              | -      | - | - | -      | - | - | 114    | 164  | -   | 342    | 408  | -   |
| Stage 2              | -      | - | - | -      | - | - | 513    | 408  | -   | 195    | 156  | -   |

| Approach             | EB  | WB  | NB    | SB   |
|----------------------|-----|-----|-------|------|
| HCM Control Delay, s | 0.7 | 0.5 | 240.3 | 24.2 |
| HCM LOS              |     |     | F     | C    |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 118   | 920   | -   | -   | 516   | -   | -   | 262   |
| HCM Lane V/C Ratio    | 1.266 | 0.111 | -   | -   | 0.053 | -   | -   | 0.29  |
| HCM Control Delay (s) | 240.3 | 9.4   | -   | -   | 12.4  | -   | -   | 24.2  |
| HCM Lane LOS          | F     | A     | -   | -   | B     | -   | -   | C     |
| HCM 95th %tile Q(veh) | 9.7   | 0.4   | -   | -   | 0.2   | -   | -   | 1.2   |



| Intersection               |         |                        |        |                            |      |                                |
|----------------------------|---------|------------------------|--------|----------------------------|------|--------------------------------|
| Int Delay, s/veh           | 406     |                        |        |                            |      |                                |
| Movement                   | EBT     | EBR                    | WBL    | WBT                        | NBL  | NBR                            |
| Lane Configurations        | ↑↑      |                        |        | ↑↑                         | ↑↑   |                                |
| Traffic Vol, veh/h         | 1035    | 236                    | 208    | 466                        | 141  | 124                            |
| Future Vol, veh/h          | 1035    | 236                    | 208    | 466                        | 141  | 124                            |
| Conflicting Peds, #/hr     | 0       | 0                      | 0      | 0                          | 0    | 0                              |
| Sign Control               | Free    | Free                   | Free   | Free                       | Stop | Stop                           |
| RT Channelized             | -       | None                   | -      | None                       | -    | None                           |
| Storage Length             | -       | -                      | -      | -                          | 0    | -                              |
| Veh in Median Storage, #   | 0       | -                      | -      | 0                          | 0    | -                              |
| Grade, %                   | 0       | -                      | -      | 0                          | 0    | -                              |
| Peak Hour Factor           | 92      | 92                     | 92     | 92                         | 92   | 92                             |
| Heavy Vehicles, %          | 2       | 2                      | 2      | 2                          | 2    | 2                              |
| Mvmt Flow                  | 1125    | 257                    | 226    | 507                        | 153  | 135                            |
|                            |         |                        |        |                            |      |                                |
| Major/Minor                | Major1  | Major2                 | Minor1 |                            |      |                                |
| Conflicting Flow All       | 0       | 0                      | 1382   | 0                          | 1960 | 691                            |
| Stage 1                    | -       | -                      | -      | -                          | 1254 | -                              |
| Stage 2                    | -       | -                      | -      | -                          | 706  | -                              |
| Critical Hdwy              | -       | -                      | 4.14   | -                          | 6.84 | 6.94                           |
| Critical Hdwy Stg 1        | -       | -                      | -      | -                          | 5.84 | -                              |
| Critical Hdwy Stg 2        | -       | -                      | -      | -                          | 5.84 | -                              |
| Follow-up Hdwy             | -       | -                      | 2.22   | -                          | 3.52 | 3.32                           |
| Pot Cap-1 Maneuver         | -       | -                      | 492    | -                          | ~ 55 | 387                            |
| Stage 1                    | -       | -                      | -      | -                          | 232  | -                              |
| Stage 2                    | -       | -                      | -      | -                          | 450  | -                              |
| Platoon blocked, %         | -       | -                      | -      | -                          | -    | -                              |
| Mov Cap-1 Maneuver         | -       | -                      | 492    | -                          | ~ 20 | 387                            |
| Mov Cap-2 Maneuver         | -       | -                      | -      | -                          | ~ 20 | -                              |
| Stage 1                    | -       | -                      | -      | -                          | 232  | -                              |
| Stage 2                    | -       | -                      | -      | -                          | 162  | -                              |
|                            |         |                        |        |                            |      |                                |
|                            |         |                        |        |                            |      |                                |
| Approach                   | EB      | WB                     |        | NB                         |      |                                |
| HCM Control Delay, s       | 0       | 7.8                    |        | \$ 3366                    |      |                                |
| HCM LOS                    | F       |                        |        |                            |      |                                |
|                            |         |                        |        |                            |      |                                |
|                            |         |                        |        |                            |      |                                |
| Minor Lane/Major Mvmt      | NBLn1   | EBT                    | EBR    | WBL                        | WBT  |                                |
| Capacity (veh/h)           | 36      | -                      | -      | 492                        | -    |                                |
| HCM Lane V/C Ratio         | 8.001   | -                      | -      | 0.46                       | -    |                                |
| HCM Control Delay (s)      | \$ 3366 | -                      | -      | 18.4                       | 3.1  |                                |
| HCM Lane LOS               | F       | -                      | -      | C                          | A    |                                |
| HCM 95th %tile Q(veh)      | 34.6    | -                      | -      | 2.4                        | -    |                                |
| Notes                      |         |                        |        |                            |      |                                |
| ~: Volume exceeds capacity |         | \$: Delay exceeds 300s |        | +: Computation Not Defined |      | *: All major volume in platoon |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 0.3    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     |      |        | ↑↑    | ↑↑     |      |
| Traffic Vol, veh/h       | 779    | 11   | 1      | 1043  | 16     | 3    |
| Future Vol, veh/h        | 779    | 11   | 1      | 1043  | 16     | 3    |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | -    | -      | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 7      | 11   | 0      | 2     | 0      | 33   |
| Mvmt Flow                | 847    | 12   | 1      | 1134  | 17     | 3    |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 859    | 0     | 1422   | 430  |
| Stage 1                  | -      | -    | -      | -     | 853    | -    |
| Stage 2                  | -      | -    | -      | -     | 569    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 7.56 |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.63 |
| Pot Cap-1 Maneuver       | -      | -    | 791    | -     | 129    | 495  |
| Stage 1                  | -      | -    | -      | -     | 383    | -    |
| Stage 2                  | -      | -    | -      | -     | 535    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 791    | -     | 129    | 495  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 129    | -    |
| Stage 1                  | -      | -    | -      | -     | 383    | -    |
| Stage 2                  | -      | -    | -      | -     | 533    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0      |       | 33.7   |      |
| HCM LOS                  |        |      |        |       | D      |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 146    | -    | -      | 791   | -      |      |
| HCM Lane V/C Ratio       | 0.141  | -    | -      | 0.001 | -      |      |
| HCM Control Delay (s)    | 33.7   | -    | -      | 9.6   | 0      |      |
| HCM Lane LOS             | D      | -    | -      | A     | A      |      |
| HCM 95th %tile Q(veh)    | 0.5    | -    | -      | 0     | -      |      |

| Intersection               |          |                        |      |                            |      |                                |
|----------------------------|----------|------------------------|------|----------------------------|------|--------------------------------|
| Int Delay, s/veh           | 33.4     |                        |      |                            |      |                                |
| Movement                   | EBT      | EBR                    | WBL  | WBT                        | NBL  | NBR                            |
| Lane Configurations        | ↑↑       | ↗                      | ↘    | ↑↑                         | ↘↗   |                                |
| Traffic Vol, veh/h         | 567      | 83                     | 94   | 1150                       | 97   | 80                             |
| Future Vol, veh/h          | 567      | 83                     | 94   | 1150                       | 97   | 80                             |
| Conflicting Peds, #/hr     | 0        | 0                      | 0    | 0                          | 0    | 0                              |
| Sign Control               | Free     | Free                   | Free | Free                       | Stop | Stop                           |
| RT Channelized             | -        | None                   | -    | None                       | -    | None                           |
| Storage Length             | -        | 200                    | 150  | -                          | 0    | -                              |
| Veh in Median Storage, #   | 0        | -                      | -    | 0                          | 0    | -                              |
| Grade, %                   | 0        | -                      | -    | 0                          | 0    | -                              |
| Peak Hour Factor           | 83       | 83                     | 83   | 83                         | 83   | 83                             |
| Heavy Vehicles, %          | 4        | 3                      | 3    | 2                          | 9    | 10                             |
| Mvmt Flow                  | 683      | 100                    | 113  | 1386                       | 117  | 96                             |
|                            |          |                        |      |                            |      |                                |
| Major/Minor                | Major1   | Major2                 |      | Minor1                     |      |                                |
| Conflicting Flow All       | 0        | 0                      | 783  | 0                          | 1602 | 342                            |
| Stage 1                    | -        | -                      | -    | -                          | 683  | -                              |
| Stage 2                    | -        | -                      | -    | -                          | 919  | -                              |
| Critical Hdwy              | -        | -                      | 4.16 | -                          | 6.98 | 7.1                            |
| Critical Hdwy Stg 1        | -        | -                      | -    | -                          | 5.98 | -                              |
| Critical Hdwy Stg 2        | -        | -                      | -    | -                          | 5.98 | -                              |
| Follow-up Hdwy             | -        | -                      | 2.23 | -                          | 3.59 | 3.4                            |
| Pot Cap-1 Maneuver         | -        | -                      | 824  | -                          | ~ 90 | 631                            |
| Stage 1                    | -        | -                      | -    | -                          | 445  | -                              |
| Stage 2                    | -        | -                      | -    | -                          | 333  | -                              |
| Platoon blocked, %         | -        | -                      |      | -                          |      |                                |
| Mov Cap-1 Maneuver         | -        | -                      | 824  | -                          | ~ 78 | 631                            |
| Mov Cap-2 Maneuver         | -        | -                      | -    | -                          | ~ 78 | -                              |
| Stage 1                    | -        | -                      | -    | -                          | 445  | -                              |
| Stage 2                    | -        | -                      | -    | -                          | 287  | -                              |
|                            |          |                        |      |                            |      |                                |
|                            |          |                        |      |                            |      |                                |
| Approach                   | EB       | WB                     |      | NB                         |      |                                |
| HCM Control Delay, s       | 0        | 0.8                    |      | \$ 385.7                   |      |                                |
| HCM LOS                    | F        |                        |      |                            |      |                                |
|                            |          |                        |      |                            |      |                                |
|                            |          |                        |      |                            |      |                                |
| Minor Lane/Major Mvmt      | NBLn1    | EBT                    | EBR  | WBL                        | WBT  |                                |
| Capacity (veh/h)           | 129      | -                      | -    | 824                        | -    |                                |
| HCM Lane V/C Ratio         | 1.653    | -                      | -    | 0.137                      | -    |                                |
| HCM Control Delay (s)      | \$ 385.7 | -                      | -    | 10.1                       | -    |                                |
| HCM Lane LOS               | F        | -                      | -    | B                          | -    |                                |
| HCM 95th %tile Q(veh)      | 15.6     | -                      | -    | 0.5                        | -    |                                |
| Notes                      |          |                        |      |                            |      |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |      | +: Computation Not Defined |      | *: All major volume in platoon |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 4.7                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |  |  |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 35                                                                                | 599                                                                               | 3                                                                                 | 32                                                                                | 1208                                                                              | 8    | 3    | 0                                                                                 | 37   | 15   | 1                                                                                   | 116  |
| Future Vol, veh/h        | 35                                                                                | 599                                                                               | 3                                                                                 | 32                                                                                | 1208                                                                              | 8    | 3    | 0                                                                                 | 37   | 15   | 1                                                                                   | 116  |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90   | 90   | 90                                                                                | 90   | 90   | 90                                                                                  | 90   |
| Heavy Vehicles, %        | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Mvmt Flow                | 39                                                                                | 666                                                                               | 3                                                                                 | 36                                                                                | 1342                                                                              | 9    | 3    | 0                                                                                 | 41   | 17   | 1                                                                                   | 129  |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |     | Minor2 |      |     |
|----------------------|--------|---|---|--------|---|---|--------|------|-----|--------|------|-----|
| Conflicting Flow All | 1351   | 0 | 0 | 669    | 0 | 0 | 1488   | 2167 | 333 | 1830   | 2166 | 676 |
| Stage 1              | -      | - | - | -      | - | - | 744    | 744  | -   | 1419   | 1419 | -   |
| Stage 2              | -      | - | - | -      | - | - | 744    | 1423 | -   | 411    | 747  | -   |
| Critical Hdwy        | 4.1    | - | - | 4.2    | - | - | 7.5    | 6.5  | 6.9 | 7.5    | 6.5  | 6.9 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.5    | 5.5  | -   | 6.5    | 5.5  | -   |
| Follow-up Hdwy       | 2.2    | - | - | 2.25   | - | - | 3.5    | 4    | 3.3 | 3.5    | 4    | 3.3 |
| Pot Cap-1 Maneuver   | 516    | - | - | 897    | - | - | 88     | 48   | 669 | 49     | 48   | 401 |
| Stage 1              | -      | - | - | -      | - | - | 377    | 424  | -   | 146    | 205  | -   |
| Stage 2              | -      | - | - | -      | - | - | 377    | 204  | -   | 594    | 423  | -   |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -   | -      | -    | -   |
| Mov Cap-1 Maneuver   | 516    | - | - | 897    | - | - | 54     | 43   | 669 | 42     | 43   | 401 |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 54     | 43   | -   | 42     | 43   | -   |
| Stage 1              | -      | - | - | -      | - | - | 348    | 392  | -   | 135    | 197  | -   |
| Stage 2              | -      | - | - | -      | - | - | 244    | 196  | -   | 515    | 391  | -   |

| Approach             | EB  |  |  | WB  |  |  | NB   |  |  | SB   |  |  |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.7 |  |  | 0.2 |  |  | 16.4 |  |  | 62.9 |  |  |
| HCM LOS              |     |  |  |     |  |  | C    |  |  | F    |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL  | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|------|-----|-----|-------|
| Capacity (veh/h)      | 361   | 516   | -   | -   | 897  | -   | -   | 197   |
| HCM Lane V/C Ratio    | 0.123 | 0.075 | -   | -   | 0.04 | -   | -   | 0.745 |
| HCM Control Delay (s) | 16.4  | 12.5  | -   | -   | 9.2  | -   | -   | 62.9  |
| HCM Lane LOS          | C     | B     | -   | -   | A    | -   | -   | F     |
| HCM 95th %tile Q(veh) | 0.4   | 0.2   | -   | -   | 0.1  | -   | -   | 4.9   |

| Intersection               |        |                        |        |                            |        |                                |
|----------------------------|--------|------------------------|--------|----------------------------|--------|--------------------------------|
| Int Delay, s/veh           | 226    |                        |        |                            |        |                                |
| Movement                   | EBT    | EBR                    | WBL    | WBT                        | NBL    | NBR                            |
| Lane Configurations        | ↑↑     |                        |        | ↑↑                         | ↑↑     |                                |
| Traffic Vol, veh/h         | 557    | 90                     | 80     | 979                        | 265    | 233                            |
| Future Vol, veh/h          | 557    | 90                     | 80     | 979                        | 265    | 233                            |
| Conflicting Peds, #/hr     | 0      | 0                      | 0      | 0                          | 0      | 0                              |
| Sign Control               | Free   | Free                   | Free   | Free                       | Stop   | Stop                           |
| RT Channelized             | -      | None                   | -      | None                       | -      | None                           |
| Storage Length             | -      | -                      | -      | -                          | 0      | -                              |
| Veh in Median Storage, #   | 0      | -                      | -      | 0                          | 0      | -                              |
| Grade, %                   | 0      | -                      | -      | 0                          | 0      | -                              |
| Peak Hour Factor           | 92     | 92                     | 92     | 92                         | 92     | 92                             |
| Heavy Vehicles, %          | 2      | 2                      | 2      | 2                          | 2      | 2                              |
| Mvmt Flow                  | 605    | 98                     | 87     | 1064                       | 288    | 253                            |
|                            |        |                        |        |                            |        |                                |
| Major/Minor                | Major1 |                        | Major2 |                            | Minor1 |                                |
| Conflicting Flow All       | 0      | 0                      | 703    | 0                          | 1360   | 352                            |
| Stage 1                    | -      | -                      | -      | -                          | 654    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 706    | -                              |
| Critical Hdwy              | -      | -                      | 4.14   | -                          | 6.84   | 6.94                           |
| Critical Hdwy Stg 1        | -      | -                      | -      | -                          | 5.84   | -                              |
| Critical Hdwy Stg 2        | -      | -                      | -      | -                          | 5.84   | -                              |
| Follow-up Hdwy             | -      | -                      | 2.22   | -                          | 3.52   | 3.32                           |
| Pot Cap-1 Maneuver         | -      | -                      | 890    | -                          | ~ 140  | 644                            |
| Stage 1                    | -      | -                      | -      | -                          | 479    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 450    | -                              |
| Platoon blocked, %         | -      | -                      |        | -                          |        |                                |
| Mov Cap-1 Maneuver         | -      | -                      | 890    | -                          | ~ 107  | 644                            |
| Mov Cap-2 Maneuver         | -      | -                      | -      | -                          | ~ 107  | -                              |
| Stage 1                    | -      | -                      | -      | -                          | 479    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 342    | -                              |
|                            |        |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Approach                   | EB     |                        | WB     |                            | NB     |                                |
| HCM Control Delay, s       | 0      |                        | 1.6    |                            | \$ 997 |                                |
| HCM LOS                    |        |                        |        |                            | F      |                                |
|                            |        |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Minor Lane/Major Mvmt      | NBLn1  | EBT                    | EBR    | WBL                        | WBT    |                                |
| Capacity (veh/h)           | 175    | -                      | -      | 890                        | -      |                                |
| HCM Lane V/C Ratio         | 3.093  | -                      | -      | 0.098                      | -      |                                |
| HCM Control Delay (s)      | \$ 997 | -                      | -      | 9.5                        | 1      |                                |
| HCM Lane LOS               | F      | -                      | -      | A                          | A      |                                |
| HCM 95th %tile Q(veh)      | 49.9   | -                      | -      | 0.3                        | -      |                                |
| Notes                      |        |                        |        |                            |        |                                |
| ~: Volume exceeds capacity |        | \$: Delay exceeds 300s |        | +: Computation Not Defined |        | *: All major volume in platoon |



| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑    |      |
| Traffic Vol, veh/h       | 1251 | 16   | 0    | 745  | 9    | 0    |
| Future Vol, veh/h        | 1251 | 16   | 0    | 745  | 9    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 90   | 90   | 90   | 90   | 90   | 90   |
| Heavy Vehicles, %        | 1    | 8    | 2    | 1    | 14   | 2    |
| Mvmt Flow                | 1390 | 18   | 0    | 828  | 10   | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |      |
|----------------------|--------|--------|--------|---|------|------|
| Conflicting Flow All | 0      | 0      | 1408   | 0 | 1813 | 704  |
| Stage 1              | -      | -      | -      | - | 1399 | -    |
| Stage 2              | -      | -      | -      | - | 414  | -    |
| Critical Hdwy        | -      | -      | 4.14   | - | 7.08 | 6.94 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 6.08 | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 6.08 | -    |
| Follow-up Hdwy       | -      | -      | 2.22   | - | 3.64 | 3.32 |
| Pot Cap-1 Maneuver   | -      | -      | 481    | - | 61   | 379  |
| Stage 1              | -      | -      | -      | - | 174  | -    |
| Stage 2              | -      | -      | -      | - | 602  | -    |
| Platoon blocked, %   | -      | -      | -      | - | -    | -    |
| Mov Cap-1 Maneuver   | -      | -      | 481    | - | 61   | 379  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 61   | -    |
| Stage 1              | -      | -      | -      | - | 174  | -    |
| Stage 2              | -      | -      | -      | - | 602  | -    |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 75.3 |
| HCM LOS              |    |    | F    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 61    | -   | -   | 481 | -   |
| HCM Lane V/C Ratio    | 0.164 | -   | -   | -   | -   |
| HCM Control Delay (s) | 75.3  | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.5   | -   | -   | 0   | -   |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 4.3    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     | ↗    | ↘      | ↑↑    | ↘      |      |
| Traffic Vol, veh/h       | 1339   | 27   | 33     | 644   | 33     | 62   |
| Future Vol, veh/h        | 1339   | 27   | 33     | 644   | 33     | 62   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1455   | 29   | 36     | 700   | 36     | 67   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1484   | 0     | 1877   | 728  |
| Stage 1                  | -      | -    | -      | -     | 1455   | -    |
| Stage 2                  | -      | -    | -      | -     | 422    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 6.9  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 459    | -     | 65     | 370  |
| Stage 1                  | -      | -    | -      | -     | 184    | -    |
| Stage 2                  | -      | -    | -      | -     | 635    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 459    | -     | 60     | 370  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 60     | -    |
| Stage 1                  | -      | -    | -      | -     | 184    | -    |
| Stage 2                  | -      | -    | -      | -     | 585    | -    |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.7    |       | 92.8   |      |
| HCM LOS                  |        |      |        |       | F      |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 132    | -    | -      | 459   | -      |      |
| HCM Lane V/C Ratio       | 0.782  | -    | -      | 0.078 | -      |      |
| HCM Control Delay (s)    | 92.8   | -    | -      | 13.5  | -      |      |
| HCM Lane LOS             | F      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 4.7    | -    | -      | 0.3   | -      |      |

| Intersection               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |          |                                                                                   |                                |        |                                                                                     |      |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|----------|-----------------------------------------------------------------------------------|--------------------------------|--------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh           | 35.2                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |          |                                                                                   |                                |        |                                                                                     |      |
| Movement                   | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL      | NBT                                                                               | NBR                            | SBL    | SBT                                                                                 | SBR  |
| Lane Configurations        |  |  |  |  |  |      |          |  |                                |        |  |      |
| Traffic Vol, veh/h         | 96                                                                                | 1250                                                                              | 41                                                                                | 27                                                                                | 647                                                                               | 3    | 24       | 7                                                                                 | 112                            | 5      | 2                                                                                   | 65   |
| Future Vol, veh/h          | 96                                                                                | 1250                                                                              | 41                                                                                | 27                                                                                | 647                                                                               | 3    | 24       | 7                                                                                 | 112                            | 5      | 2                                                                                   | 65   |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0        | 0                                                                                 | 0                              | 0      | 0                                                                                   | 0    |
| Sign Control               | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop     | Stop                                                                              | Stop                           | Stop   | Stop                                                                                | Stop |
| RT Channelized             | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -        | -                                                                                 | None                           | -      | -                                                                                   | None |
| Storage Length             | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -        | -                                                                                 | -                              | -      | -                                                                                   | -    |
| Veh in Median Storage, #   | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -        | 0                                                                                 | -                              | -      | 0                                                                                   | -    |
| Grade, %                   | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -        | 0                                                                                 | -                              | -      | 0                                                                                   | -    |
| Peak Hour Factor           | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87   | 87       | 87                                                                                | 87                             | 87     | 87                                                                                  | 87   |
| Heavy Vehicles, %          | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0    | 0        | 0                                                                                 | 0                              | 0      | 0                                                                                   | 0    |
| Mvmt Flow                  | 110                                                                               | 1437                                                                              | 47                                                                                | 31                                                                                | 744                                                                               | 3    | 28       | 8                                                                                 | 129                            | 6      | 2                                                                                   | 75   |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |          |                                                                                   |                                |        |                                                                                     |      |
| Major/Minor                | Major1                                                                            |                                                                                   |                                                                                   | Major2                                                                            |                                                                                   |      | Minor1   |                                                                                   |                                | Minor2 |                                                                                     |      |
| Conflicting Flow All       | 747                                                                               | 0                                                                                 | 0                                                                                 | 1484                                                                              | 0                                                                                 | 0    | 2092     | 2466                                                                              | 719                            | 1751   | 2512                                                                                | 374  |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 1657     | 1657                                                                              | -                              | 808    | 808                                                                                 | -    |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 435      | 809                                                                               | -                              | 943    | 1704                                                                                | -    |
| Critical Hdwy              | 4.12                                                                              | -                                                                                 | -                                                                                 | 4.1                                                                               | -                                                                                 | -    | 7.5      | 6.5                                                                               | 6.9                            | 7.5    | 6.5                                                                                 | 6.9  |
| Critical Hdwy Stg 1        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.5      | 5.5                                                                               | -                              | 6.5    | 5.5                                                                                 | -    |
| Critical Hdwy Stg 2        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.5      | 5.5                                                                               | -                              | 6.5    | 5.5                                                                                 | -    |
| Follow-up Hdwy             | 2.21                                                                              | -                                                                                 | -                                                                                 | 2.2                                                                               | -                                                                                 | -    | 3.5      | 4                                                                                 | 3.3                            | 3.5    | 4                                                                                   | 3.3  |
| Pot Cap-1 Maneuver         | 864                                                                               | -                                                                                 | -                                                                                 | 459                                                                               | -                                                                                 | -    | 31       | 31                                                                                | 375                            | 56     | 29                                                                                  | 629  |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 104      | 157                                                                               | -                              | 345    | 397                                                                                 | -    |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 575      | 396                                                                               | -                              | 286    | 149                                                                                 | -    |
| Platoon blocked, %         |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 | -    |          |                                                                                   |                                |        |                                                                                     |      |
| Mov Cap-1 Maneuver         | 864                                                                               | -                                                                                 | -                                                                                 | 459                                                                               | -                                                                                 | -    | ~ 22     | 25                                                                                | 375                            | 24     | 24                                                                                  | 629  |
| Mov Cap-2 Maneuver         | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | ~ 22     | 25                                                                                | -                              | 24     | 24                                                                                  | -    |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 91       | 137                                                                               | -                              | 301    | 370                                                                                 | -    |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 470      | 369                                                                               | -                              | 154    | 130                                                                                 | -    |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |          |                                                                                   |                                |        |                                                                                     |      |
| Approach                   | EB                                                                                |                                                                                   |                                                                                   | WB                                                                                |                                                                                   |      | NB       |                                                                                   |                                | SB     |                                                                                     |      |
| HCM Control Delay, s       | 0.7                                                                               |                                                                                   |                                                                                   | 0.5                                                                               |                                                                                   |      | \$ 531.3 |                                                                                   |                                | 40.3   |                                                                                     |      |
| HCM LOS                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      | F        |                                                                                   |                                | E      |                                                                                     |      |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |          |                                                                                   |                                |        |                                                                                     |      |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT  | WBR      | SBLn1                                                                             |                                |        |                                                                                     |      |
| Capacity (veh/h)           | 86                                                                                | 864                                                                               | -                                                                                 | -                                                                                 | 459                                                                               | -    | -        | 182                                                                               |                                |        |                                                                                     |      |
| HCM Lane V/C Ratio         | 1.911                                                                             | 0.128                                                                             | -                                                                                 | -                                                                                 | 0.068                                                                             | -    | -        | 0.455                                                                             |                                |        |                                                                                     |      |
| HCM Control Delay (s)      | \$ 531.3                                                                          | 9.8                                                                               | -                                                                                 | -                                                                                 | 13.4                                                                              | -    | -        | 40.3                                                                              |                                |        |                                                                                     |      |
| HCM Lane LOS               | F                                                                                 | A                                                                                 | -                                                                                 | -                                                                                 | B                                                                                 | -    | -        | E                                                                                 |                                |        |                                                                                     |      |
| HCM 95th %tile Q(veh)      | 14.2                                                                              | 0.4                                                                               | -                                                                                 | -                                                                                 | 0.2                                                                               | -    | -        | 2.1                                                                               |                                |        |                                                                                     |      |
| Notes                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |          |                                                                                   |                                |        |                                                                                     |      |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s                                                            |                                                                                   |                                                                                   | +: Computation Not Defined                                                        |      |          |                                                                                   | *: All major volume in platoon |        |                                                                                     |      |

HCM 6th TWSC  
4: Driveway #1 & Old Cornelia Highway

2030 - Phase 2 widened Build Conditions  
PM Peak Hour

| Intersection               |            |                        |        |                            |            |                                |
|----------------------------|------------|------------------------|--------|----------------------------|------------|--------------------------------|
| Int Delay, s/veh           | 3143.4     |                        |        |                            |            |                                |
| Movement                   | EBT        | EBR                    | WBL    | WBT                        | NBL        | NBR                            |
| Lane Configurations        | ↑↑         |                        |        | ↑↑                         | ↑↑         |                                |
| Traffic Vol, veh/h         | 1113       | 288                    | 253    | 501                        | 176        | 154                            |
| Future Vol, veh/h          | 1113       | 288                    | 253    | 501                        | 176        | 154                            |
| Conflicting Peds, #/hr     | 0          | 0                      | 0      | 0                          | 0          | 0                              |
| Sign Control               | Free       | Free                   | Free   | Free                       | Stop       | Stop                           |
| RT Channelized             | -          | None                   | -      | None                       | -          | None                           |
| Storage Length             | -          | -                      | -      | -                          | 0          | -                              |
| Veh in Median Storage, #   | 0          | -                      | -      | 0                          | 0          | -                              |
| Grade, %                   | 0          | -                      | -      | 0                          | 0          | -                              |
| Peak Hour Factor           | 92         | 92                     | 92     | 92                         | 92         | 92                             |
| Heavy Vehicles, %          | 2          | 2                      | 2      | 2                          | 2          | 2                              |
| Mvmt Flow                  | 1210       | 313                    | 275    | 545                        | 191        | 167                            |
|                            |            |                        |        |                            |            |                                |
| Major/Minor                | Major1     |                        | Major2 |                            | Minor1     |                                |
| Conflicting Flow All       | 0          | 0                      | 1523   | 0                          | 2190       | 762                            |
| Stage 1                    | -          | -                      | -      | -                          | 1367       | -                              |
| Stage 2                    | -          | -                      | -      | -                          | 823        | -                              |
| Critical Hdwy              | -          | -                      | 4.14   | -                          | 6.84       | 6.94                           |
| Critical Hdwy Stg 1        | -          | -                      | -      | -                          | 5.84       | -                              |
| Critical Hdwy Stg 2        | -          | -                      | -      | -                          | 5.84       | -                              |
| Follow-up Hdwy             | -          | -                      | 2.22   | -                          | 3.52       | 3.32                           |
| Pot Cap-1 Maneuver         | -          | -                      | 434    | -                          | ~ 39       | 347                            |
| Stage 1                    | -          | -                      | -      | -                          | 202        | -                              |
| Stage 2                    | -          | -                      | -      | -                          | 392        | -                              |
| Platoon blocked, %         | -          | -                      |        | -                          |            |                                |
| Mov Cap-1 Maneuver         | -          | -                      | 434    | -                          | ~ 4        | 347                            |
| Mov Cap-2 Maneuver         | -          | -                      | -      | -                          | ~ 4        | -                              |
| Stage 1                    | -          | -                      | -      | -                          | 202        | -                              |
| Stage 2                    | -          | -                      | -      | -                          | ~ 36       | -                              |
|                            |            |                        |        |                            |            |                                |
|                            |            |                        |        |                            |            |                                |
| Approach                   | EB         |                        | WB     |                            | NB         |                                |
| HCM Control Delay, s       | 0          |                        | 12.9   |                            | \$ 23641.2 |                                |
| HCM LOS                    |            |                        |        |                            | F          |                                |
|                            |            |                        |        |                            |            |                                |
|                            |            |                        |        |                            |            |                                |
| Minor Lane/Major Mvmt      | NBLn1      | EBT                    | EBR    | WBL                        | WBT        |                                |
| Capacity (veh/h)           | 7          | -                      | -      | 434                        | -          |                                |
| HCM Lane V/C Ratio         | 51.242     | -                      | -      | 0.634                      | -          |                                |
| HCM Control Delay (s)      | \$ 23641.2 | -                      | -      | 26.6                       | 6          |                                |
| HCM Lane LOS               | F          | -                      | -      | D                          | A          |                                |
| HCM 95th %tile Q(veh)      | 46.8       | -                      | -      | 4.3                        | -          |                                |
| Notes                      |            |                        |        |                            |            |                                |
| ~: Volume exceeds capacity |            | \$: Delay exceeds 300s |        | +: Computation Not Defined |            | *: All major volume in platoon |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.4  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑↑   |      |
| Traffic Vol, veh/h       | 879  | 12   | 1    | 1137 | 17   | 4    |
| Future Vol, veh/h        | 879  | 12   | 1    | 1137 | 17   | 4    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 7    | 11   | 0    | 2    | 0    | 33   |
| Mvmt Flow                | 955  | 13   | 1    | 1236 | 18   | 4    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |      |
|----------------------|--------|--------|--------|---|------|------|
| Conflicting Flow All | 0      | 0      | 968    | 0 | 1582 | 484  |
| Stage 1              | -      | -      | -      | - | 962  | -    |
| Stage 2              | -      | -      | -      | - | 620  | -    |
| Critical Hdwy        | -      | -      | 4.1    | - | 6.8  | 7.56 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.8  | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.8  | -    |
| Follow-up Hdwy       | -      | -      | 2.2    | - | 3.5  | 3.63 |
| Pot Cap-1 Maneuver   | -      | -      | 720    | - | 101  | 454  |
| Stage 1              | -      | -      | -      | - | 336  | -    |
| Stage 2              | -      | -      | -      | - | 504  | -    |
| Platoon blocked, %   | -      | -      | -      | - | -    | -    |
| Mov Cap-1 Maneuver   | -      | -      | 720    | - | 101  | 454  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 101  | -    |
| Stage 1              | -      | -      | -      | - | 336  | -    |
| Stage 2              | -      | -      | -      | - | 502  | -    |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 42.3 |
| HCM LOS              |    |    | E    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 119   | -   | -   | 720   | -   |
| HCM Lane V/C Ratio    | 0.192 | -   | -   | 0.002 | -   |
| HCM Control Delay (s) | 42.3  | -   | -   | 10    | 0   |
| HCM Lane LOS          | E     | -   | -   | B     | A   |
| HCM 95th %tile Q(veh) | 0.7   | -   | -   | 0     | -   |



| Intersection               |          |                        |        |                            |          |                                |
|----------------------------|----------|------------------------|--------|----------------------------|----------|--------------------------------|
| Int Delay, s/veh           | 63.6     |                        |        |                            |          |                                |
| Movement                   | EBT      | EBR                    | WBL    | WBT                        | NBL      | NBR                            |
| Lane Configurations        | ↑↑       | ↗                      | ↖      | ↑↑                         | ↘        |                                |
| Traffic Vol, veh/h         | 623      | 90                     | 109    | 1277                       | 105      | 89                             |
| Future Vol, veh/h          | 623      | 90                     | 109    | 1277                       | 105      | 89                             |
| Conflicting Peds, #/hr     | 0        | 0                      | 0      | 0                          | 0        | 0                              |
| Sign Control               | Free     | Free                   | Free   | Free                       | Stop     | Stop                           |
| RT Channelized             | -        | None                   | -      | None                       | -        | None                           |
| Storage Length             | -        | 200                    | 150    | -                          | 0        | -                              |
| Veh in Median Storage, #   | 0        | -                      | -      | 0                          | 0        | -                              |
| Grade, %                   | 0        | -                      | -      | 0                          | 0        | -                              |
| Peak Hour Factor           | 83       | 83                     | 83     | 83                         | 83       | 83                             |
| Heavy Vehicles, %          | 4        | 3                      | 3      | 2                          | 9        | 10                             |
| Mvmt Flow                  | 751      | 108                    | 131    | 1539                       | 127      | 107                            |
|                            |          |                        |        |                            |          |                                |
| Major/Minor                | Major1   |                        | Major2 |                            | Minor1   |                                |
| Conflicting Flow All       | 0        | 0                      | 859    | 0                          | 1783     | 376                            |
| Stage 1                    | -        | -                      | -      | -                          | 751      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 1032     | -                              |
| Critical Hdwy              | -        | -                      | 4.16   | -                          | 6.98     | 7.1                            |
| Critical Hdwy Stg 1        | -        | -                      | -      | -                          | 5.98     | -                              |
| Critical Hdwy Stg 2        | -        | -                      | -      | -                          | 5.98     | -                              |
| Follow-up Hdwy             | -        | -                      | 2.23   | -                          | 3.59     | 3.4                            |
| Pot Cap-1 Maneuver         | -        | -                      | 772    | -                          | ~ 68     | 599                            |
| Stage 1                    | -        | -                      | -      | -                          | 409      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 289      | -                              |
| Platoon blocked, %         | -        | -                      | -      | -                          | -        | -                              |
| Mov Cap-1 Maneuver         | -        | -                      | 772    | -                          | ~ 56     | 599                            |
| Mov Cap-2 Maneuver         | -        | -                      | -      | -                          | ~ 56     | -                              |
| Stage 1                    | -        | -                      | -      | -                          | 409      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 240      | -                              |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Approach                   | EB       |                        | WB     |                            | NB       |                                |
| HCM Control Delay, s       | 0        |                        | 0.8    |                            | \$ 746.5 |                                |
| HCM LOS                    |          |                        |        |                            | F        |                                |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Minor Lane/Major Mvmt      | NBLn1    | EBT                    | EBR    | WBL                        | WBT      |                                |
| Capacity (veh/h)           | 96       | -                      | -      | 772                        | -        |                                |
| HCM Lane V/C Ratio         | 2.435    | -                      | -      | 0.17                       | -        |                                |
| HCM Control Delay (s)      | \$ 746.5 | -                      | -      | 10.6                       | -        |                                |
| HCM Lane LOS               | F        | -                      | -      | B                          | -        |                                |
| HCM 95th %tile Q(veh)      | 21.3     | -                      | -      | 0.6                        | -        |                                |
| Notes                      |          |                        |        |                            |          |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |        | +: Computation Not Defined |          | *: All major volume in platoon |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |        |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 9.7                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |        |                                                                                   |                                                                                   |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL    | NBT                                                                               | NBR  | SBL    | SBT                                                                               | SBR                                                                               |
| Lane Configurations      |  |  |  |  |  |  |        |  |      |        |  |  |
| Traffic Vol, veh/h       | 38                                                                                | 657                                                                               | 4                                                                                 | 36                                                                                | 1337                                                                              | 8                                                                                 | 4      | 0                                                                                 | 40   | 16     | 1                                                                                 | 125                                                                               |
| Future Vol, veh/h        | 38                                                                                | 657                                                                               | 4                                                                                 | 36                                                                                | 1337                                                                              | 8                                                                                 | 4      | 0                                                                                 | 40   | 16     | 1                                                                                 | 125                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0      | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop   | Stop                                                                              | Stop | Stop   | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None                                                                              | -      | -                                                                                 | None | -      | -                                                                                 | None                                                                              |
| Storage Length           | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -                                                                                 | -      | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -      | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |
| Grade, %                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -      | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90                                                                                | 90     | 90                                                                                | 90   | 90     | 90                                                                                | 90                                                                                |
| Heavy Vehicles, %        | 0                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 2                                                                                 | 0                                                                                 | 0      | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 |
| Mvmt Flow                | 42                                                                                | 730                                                                               | 4                                                                                 | 40                                                                                | 1486                                                                              | 9                                                                                 | 4      | 0                                                                                 | 44   | 18     | 1                                                                                 | 139                                                                               |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |        |                                                                                   |                                                                                   |
| Major/Minor              | Major1                                                                            |                                                                                   |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   | Minor1 |                                                                                   |      | Minor2 |                                                                                   |                                                                                   |
| Conflicting Flow All     | 1495                                                                              | 0                                                                                 | 0                                                                                 | 734                                                                               | 0                                                                                 | 0                                                                                 | 1638   | 2389                                                                              | 365  | 2020   | 2389                                                                              | 748                                                                               |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 814    | 814                                                                               | -    | 1571   | 1571                                                                              | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 824    | 1575                                                                              | -    | 449    | 818                                                                               | -                                                                                 |
| Critical Hdwy            | 4.1                                                                               | -                                                                                 | -                                                                                 | 4.2                                                                               | -                                                                                 | -                                                                                 | 7.5    | 6.5                                                                               | 6.9  | 7.5    | 6.5                                                                               | 6.9                                                                               |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 6.5    | 5.5                                                                               | -    | 6.5    | 5.5                                                                               | -                                                                                 |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 6.5    | 5.5                                                                               | -    | 6.5    | 5.5                                                                               | -                                                                                 |
| Follow-up Hdwy           | 2.2                                                                               | -                                                                                 | -                                                                                 | 2.25                                                                              | -                                                                                 | -                                                                                 | 3.5    | 4                                                                                 | 3.3  | 3.5    | 4                                                                                 | 3.3                                                                               |
| Pot Cap-1 Maneuver       | 455                                                                               | -                                                                                 | -                                                                                 | 847                                                                               | -                                                                                 | -                                                                                 | 68     | 34                                                                                | 638  | 35     | 34                                                                                | 359                                                                               |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 342    | 394                                                                               | -    | 118    | 173                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 338    | 172                                                                               | -    | 564    | 393                                                                               | -                                                                                 |
| Platoon blocked, %       |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 | -                                                                                 |        |                                                                                   |      |        |                                                                                   |                                                                                   |
| Mov Cap-1 Maneuver       | 455                                                                               | -                                                                                 | -                                                                                 | 847                                                                               | -                                                                                 | -                                                                                 | 36     | 29                                                                                | 638  | 29     | 29                                                                                | 359                                                                               |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 36     | 29                                                                                | -    | 29     | 29                                                                                | -                                                                                 |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 311    | 358                                                                               | -    | 107    | 165                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 196    | 164                                                                               | -    | 476    | 357                                                                               | -                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |        |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |        |                                                                                   |                                                                                   |
| Approach                 | EB                                                                                |                                                                                   |                                                                                   | WB                                                                                |                                                                                   |                                                                                   | NB     |                                                                                   |      | SB     |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 0.7                                                                               |                                                                                   |                                                                                   | 0.2                                                                               |                                                                                   |                                                                                   | 22.6   |                                                                                   |      | 142.8  |                                                                                   |                                                                                   |
| HCM LOS                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | C      |                                                                                   |      | F      |                                                                                   |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |        |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR    | SBLn1                                                                             |      |        |                                                                                   |                                                                                   |
| Capacity (veh/h)         | 253                                                                               | 455                                                                               | -                                                                                 | -                                                                                 | 847                                                                               | -                                                                                 | -      | 152                                                                               |      |        |                                                                                   |                                                                                   |
| HCM Lane V/C Ratio       | 0.193                                                                             | 0.093                                                                             | -                                                                                 | -                                                                                 | 0.047                                                                             | -                                                                                 | -      | 1.038                                                                             |      |        |                                                                                   |                                                                                   |
| HCM Control Delay (s)    | 22.6                                                                              | 13.7                                                                              | -                                                                                 | -                                                                                 | 9.5                                                                               | -                                                                                 | -      | 142.8                                                                             |      |        |                                                                                   |                                                                                   |
| HCM Lane LOS             | C                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 | A                                                                                 | -                                                                                 | -      | F                                                                                 |      |        |                                                                                   |                                                                                   |
| HCM 95th %tile Q(veh)    | 0.7                                                                               | 0.3                                                                               | -                                                                                 | -                                                                                 | 0.1                                                                               | -                                                                                 | -      | 8.1                                                                               |      |        |                                                                                   |                                                                                   |

| Intersection               |           |                        |        |                            |           |                                |
|----------------------------|-----------|------------------------|--------|----------------------------|-----------|--------------------------------|
| Int Delay, s/veh           | 623.7     |                        |        |                            |           |                                |
| Movement                   | EBT       | EBR                    | WBL    | WBT                        | NBL       | NBR                            |
| Lane Configurations        | ↑↑        |                        |        | ↑↑                         | ↑↑        |                                |
| Traffic Vol, veh/h         | 601       | 111                    | 98     | 1156                       | 329       | 290                            |
| Future Vol, veh/h          | 601       | 111                    | 98     | 1156                       | 329       | 290                            |
| Conflicting Peds, #/hr     | 0         | 0                      | 0      | 0                          | 0         | 0                              |
| Sign Control               | Free      | Free                   | Free   | Free                       | Stop      | Stop                           |
| RT Channelized             | -         | None                   | -      | None                       | -         | None                           |
| Storage Length             | -         | -                      | -      | -                          | 0         | -                              |
| Veh in Median Storage, #   | 0         | -                      | -      | 0                          | 0         | -                              |
| Grade, %                   | 0         | -                      | -      | 0                          | 0         | -                              |
| Peak Hour Factor           | 92        | 92                     | 92     | 92                         | 92        | 92                             |
| Heavy Vehicles, %          | 2         | 2                      | 2      | 2                          | 2         | 2                              |
| Mvmt Flow                  | 653       | 121                    | 107    | 1257                       | 358       | 315                            |
|                            |           |                        |        |                            |           |                                |
| Major/Minor                | Major1    |                        | Major2 |                            | Minor1    |                                |
| Conflicting Flow All       | 0         | 0                      | 774    | 0                          | 1557      | 387                            |
| Stage 1                    | -         | -                      | -      | -                          | 714       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 843       | -                              |
| Critical Hdwy              | -         | -                      | 4.14   | -                          | 6.84      | 6.94                           |
| Critical Hdwy Stg 1        | -         | -                      | -      | -                          | 5.84      | -                              |
| Critical Hdwy Stg 2        | -         | -                      | -      | -                          | 5.84      | -                              |
| Follow-up Hdwy             | -         | -                      | 2.22   | -                          | 3.52      | 3.32                           |
| Pot Cap-1 Maneuver         | -         | -                      | 837    | -                          | ~ 103     | 611                            |
| Stage 1                    | -         | -                      | -      | -                          | 446       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 382       | -                              |
| Platoon blocked, %         | -         | -                      |        | -                          |           |                                |
| Mov Cap-1 Maneuver         | -         | -                      | 837    | -                          | ~ 59      | 611                            |
| Mov Cap-2 Maneuver         | -         | -                      | -      | -                          | ~ 59      | -                              |
| Stage 1                    | -         | -                      | -      | -                          | 446       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | ~ 220     | -                              |
|                            |           |                        |        |                            |           |                                |
|                            |           |                        |        |                            |           |                                |
| Approach                   | EB        |                        | WB     |                            | NB        |                                |
| HCM Control Delay, s       | 0         |                        | 2.4    |                            | \$ 2599.6 |                                |
| HCM LOS                    |           |                        |        |                            | F         |                                |
|                            |           |                        |        |                            |           |                                |
|                            |           |                        |        |                            |           |                                |
| Minor Lane/Major Mvmt      | NBLn1     | EBT                    | EBR    | WBL                        | WBT       |                                |
| Capacity (veh/h)           | 102       | -                      | -      | 837                        | -         |                                |
| HCM Lane V/C Ratio         | 6.596     | -                      | -      | 0.127                      | -         |                                |
| HCM Control Delay (s)      | \$ 2599.6 | -                      | -      | 9.9                        | 1.8       |                                |
| HCM Lane LOS               | F         | -                      | -      | A                          | A         |                                |
| HCM 95th %tile Q(veh)      | 74.7      | -                      | -      | 0.4                        | -         |                                |
| Notes                      |           |                        |        |                            |           |                                |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |        | +: Computation Not Defined |           | *: All major volume in platoon |

| Intersection             |        |      |        |      |        |      |
|--------------------------|--------|------|--------|------|--------|------|
| Int Delay, s/veh         | 0.5    |      |        |      |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT  | NBL    | NBR  |
| Lane Configurations      | ↑↑     |      |        | ↑↑   | ↑↑     |      |
| Traffic Vol, veh/h       | 1375   | 17   | 0      | 851  | 10     | 0    |
| Future Vol, veh/h        | 1375   | 17   | 0      | 851  | 10     | 0    |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0    | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free | Stop   | Stop |
| RT Channelized           | -      | None | -      | None | -      | None |
| Storage Length           | -      | -    | -      | -    | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0    | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0    | 0      | -    |
| Peak Hour Factor         | 90     | 90   | 90     | 90   | 90     | 90   |
| Heavy Vehicles, %        | 1      | 8    | 2      | 1    | 14     | 2    |
| Mvmt Flow                | 1528   | 19   | 0      | 946  | 11     | 0    |
|                          |        |      |        |      |        |      |
| Major/Minor              | Major1 |      | Major2 |      | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1547   | 0    | 2011   | 774  |
| Stage 1                  | -      | -    | -      | -    | 1538   | -    |
| Stage 2                  | -      | -    | -      | -    | 473    | -    |
| Critical Hdwy            | -      | -    | 4.14   | -    | 7.08   | 6.94 |
| Critical Hdwy Stg 1      | -      | -    | -      | -    | 6.08   | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -    | 6.08   | -    |
| Follow-up Hdwy           | -      | -    | 2.22   | -    | 3.64   | 3.32 |
| Pot Cap-1 Maneuver       | -      | -    | 425    | -    | 44     | 341  |
| Stage 1                  | -      | -    | -      | -    | 145    | -    |
| Stage 2                  | -      | -    | -      | -    | 560    | -    |
| Platoon blocked, %       | -      | -    |        | -    |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 425    | -    | 44     | 341  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -    | 44     | -    |
| Stage 1                  | -      | -    | -      | -    | 145    | -    |
| Stage 2                  | -      | -    | -      | -    | 560    | -    |
|                          |        |      |        |      |        |      |
|                          |        |      |        |      |        |      |
| Approach                 | EB     |      | WB     |      | NB     |      |
| HCM Control Delay, s     | 0      |      | 0      |      | 112.5  |      |
| HCM LOS                  | F      |      |        |      |        |      |
|                          |        |      |        |      |        |      |
|                          |        |      |        |      |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL  | WBT    |      |
| Capacity (veh/h)         | 44     | -    | -      | 425  | -      |      |
| HCM Lane V/C Ratio       | 0.253  | -    | -      | -    | -      |      |
| HCM Control Delay (s)    | 112.5  | -    | -      | 0    | -      |      |
| HCM Lane LOS             | F      | -    | -      | A    | -      |      |
| HCM 95th %tile Q(veh)    | 0.8    | -    | -      | 0    | -      |      |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 11.2   |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     | ↑    | ↑      | ↑↑    | ↑      | ↑    |
| Traffic Vol, veh/h       | 1488   | 30   | 41     | 719   | 36     | 76   |
| Future Vol, veh/h        | 1488   | 30   | 41     | 719   | 36     | 76   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1617   | 33   | 45     | 782   | 39     | 83   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1650   | 0     | 2098   | 809  |
| Stage 1                  | -      | -    | -      | -     | 1617   | -    |
| Stage 2                  | -      | -    | -      | -     | 481    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 6.9  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 397    | -     | 46     | 328  |
| Stage 1                  | -      | -    | -      | -     | 151    | -    |
| Stage 2                  | -      | -    | -      | -     | 593    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 397    | -     | 41     | 328  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 41     | -    |
| Stage 1                  | -      | -    | -      | -     | 151    | -    |
| Stage 2                  | -      | -    | -      | -     | 526    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.8    |       | 233.4  |      |
| HCM LOS                  | F      |      |        |       |        |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 101    | -    | -      | 397   | -      |      |
| HCM Lane V/C Ratio       | 1.205  | -    | -      | 0.112 | -      |      |
| HCM Control Delay (s)    | 233.4  | -    | -      | 15.2  | -      |      |
| HCM Lane LOS             | F      | -    | -      | C     | -      |      |
| HCM 95th %tile Q(veh)    | 8.2    | -    | -      | 0.4   | -      |      |



| Intersection               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |           |                                                                                   |                                |        |                                                                                     |      |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------|-----------------------------------------------------------------------------------|--------------------------------|--------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh           | 75.3                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |           |                                                                                   |                                |        |                                                                                     |      |
| Movement                   | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR  | NBL       | NBT                                                                               | NBR                            | SBL    | SBT                                                                                 | SBR  |
| Lane Configurations        |  |  |  |  |  |      |           |  |                                |        |  |      |
| Traffic Vol, veh/h         | 103                                                                               | 1390                                                                              | 44                                                                                | 30                                                                                | 721                                                                               | 3    | 26        | 7                                                                                 | 122                            | 5      | 2                                                                                   | 70   |
| Future Vol, veh/h          | 103                                                                               | 1390                                                                              | 44                                                                                | 30                                                                                | 721                                                                               | 3    | 26        | 7                                                                                 | 122                            | 5      | 2                                                                                   | 70   |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0         | 0                                                                                 | 0                              | 0      | 0                                                                                   | 0    |
| Sign Control               | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop      | Stop                                                                              | Stop                           | Stop   | Stop                                                                                | Stop |
| RT Channelized             | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None | -         | -                                                                                 | None                           | -      | -                                                                                   | None |
| Storage Length             | 75                                                                                | -                                                                                 | 115                                                                               | 50                                                                                | -                                                                                 | -    | -         | -                                                                                 | -                              | -      | -                                                                                   | -    |
| Veh in Median Storage, #   | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -         | 0                                                                                 | -                              | -      | 0                                                                                   | -    |
| Grade, %                   | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -    | -         | 0                                                                                 | -                              | -      | 0                                                                                   | -    |
| Peak Hour Factor           | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87                                                                                | 87   | 87        | 87                                                                                | 87                             | 87     | 87                                                                                  | 87   |
| Heavy Vehicles, %          | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0    | 0         | 0                                                                                 | 0                              | 0      | 0                                                                                   | 0    |
| Mvmt Flow                  | 118                                                                               | 1598                                                                              | 51                                                                                | 34                                                                                | 829                                                                               | 3    | 30        | 8                                                                                 | 140                            | 6      | 2                                                                                   | 80   |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |           |                                                                                   |                                |        |                                                                                     |      |
| Major/Minor                | Major1                                                                            |                                                                                   |                                                                                   | Major2                                                                            |                                                                                   |      | Minor1    |                                                                                   |                                | Minor2 |                                                                                     |      |
| Conflicting Flow All       | 832                                                                               | 0                                                                                 | 0                                                                                 | 1649                                                                              | 0                                                                                 | 0    | 2318      | 2734                                                                              | 799                            | 1938   | 2784                                                                                | 416  |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 1834      | 1834                                                                              | -                              | 899    | 899                                                                                 | -    |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 484       | 900                                                                               | -                              | 1039   | 1885                                                                                | -    |
| Critical Hdwy              | 4.12                                                                              | -                                                                                 | -                                                                                 | 4.1                                                                               | -                                                                                 | -    | 7.5       | 6.5                                                                               | 6.9                            | 7.5    | 6.5                                                                                 | 6.9  |
| Critical Hdwy Stg 1        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.5       | 5.5                                                                               | -                              | 6.5    | 5.5                                                                                 | -    |
| Critical Hdwy Stg 2        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 6.5       | 5.5                                                                               | -                              | 6.5    | 5.5                                                                                 | -    |
| Follow-up Hdwy             | 2.21                                                                              | -                                                                                 | -                                                                                 | 2.2                                                                               | -                                                                                 | -    | 3.5       | 4                                                                                 | 3.3                            | 3.5    | 4                                                                                   | 3.3  |
| Pot Cap-1 Maneuver         | 803                                                                               | -                                                                                 | -                                                                                 | 397                                                                               | -                                                                                 | -    | ~ 21      | 21                                                                                | 333                            | 40     | 19                                                                                  | 591  |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 80        | 128                                                                               | -                              | 304    | 360                                                                                 | -    |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 538       | 360                                                                               | -                              | 250    | 121                                                                                 | -    |
| Platoon blocked, %         |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 | -    |           |                                                                                   |                                |        |                                                                                     |      |
| Mov Cap-1 Maneuver         | 803                                                                               | -                                                                                 | -                                                                                 | 397                                                                               | -                                                                                 | -    | ~ 13      | 16                                                                                | 333                            | 12     | 15                                                                                  | 591  |
| Mov Cap-2 Maneuver         | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | ~ 13      | 16                                                                                | -                              | 12     | 15                                                                                  | -    |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 68        | 109                                                                               | -                              | 259    | 329                                                                                 | -    |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -    | 422       | 329                                                                               | -                              | 114    | 103                                                                                 | -    |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |           |                                                                                   |                                |        |                                                                                     |      |
| Approach                   | EB                                                                                |                                                                                   |                                                                                   | WB                                                                                |                                                                                   |      | NB        |                                                                                   |                                | SB     |                                                                                     |      |
| HCM Control Delay, s       | 0.7                                                                               |                                                                                   |                                                                                   | 0.6                                                                               |                                                                                   |      | \$ 1165.3 |                                                                                   |                                | 100.8  |                                                                                     |      |
| HCM LOS                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      | F         |                                                                                   |                                | F      |                                                                                     |      |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |           |                                                                                   |                                |        |                                                                                     |      |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT  | WBR       | SBLn1                                                                             |                                |        |                                                                                     |      |
| Capacity (veh/h)           | 55                                                                                | 803                                                                               | -                                                                                 | -                                                                                 | 397                                                                               | -    | -         | 115                                                                               |                                |        |                                                                                     |      |
| HCM Lane V/C Ratio         | 3.239                                                                             | 0.147                                                                             | -                                                                                 | -                                                                                 | 0.087                                                                             | -    | -         | 0.77                                                                              |                                |        |                                                                                     |      |
| HCM Control Delay (s)      | \$ 1165.3                                                                         | 10.3                                                                              | -                                                                                 | -                                                                                 | 14.9                                                                              | -    | -         | 100.8                                                                             |                                |        |                                                                                     |      |
| HCM Lane LOS               | F                                                                                 | B                                                                                 | -                                                                                 | -                                                                                 | B                                                                                 | -    | -         | F                                                                                 |                                |        |                                                                                     |      |
| HCM 95th %tile Q(veh)      | 18.9                                                                              | 0.5                                                                               | -                                                                                 | -                                                                                 | 0.3                                                                               | -    | -         | 4.3                                                                               |                                |        |                                                                                     |      |
| Notes                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |      |           |                                                                                   |                                |        |                                                                                     |      |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s                                                            |                                                                                   |                                                                                   | +: Computation Not Defined                                                        |      |           |                                                                                   | *: All major volume in platoon |        |                                                                                     |      |

| Intersection               |        |                        |        |                            |        |                                |
|----------------------------|--------|------------------------|--------|----------------------------|--------|--------------------------------|
| Int Delay, s/veh           | 47.8   |                        |        |                            |        |                                |
| Movement                   | EBT    | EBR                    | WBL    | WBT                        | NBL    | NBR                            |
| Lane Configurations        | ↑↑     |                        |        | ↑↑                         | ↑↑     |                                |
| Traffic Vol, veh/h         | 1201   | 363                    | 320    | 541                        | 218    | 192                            |
| Future Vol, veh/h          | 1201   | 363                    | 320    | 541                        | 218    | 192                            |
| Conflicting Peds, #/hr     | 0      | 0                      | 0      | 0                          | 0      | 0                              |
| Sign Control               | Free   | Free                   | Free   | Free                       | Stop   | Stop                           |
| RT Channelized             | -      | None                   | -      | None                       | -      | None                           |
| Storage Length             | -      | -                      | -      | -                          | 0      | -                              |
| Veh in Median Storage, #   | 0      | -                      | -      | 0                          | 0      | -                              |
| Grade, %                   | 0      | -                      | -      | 0                          | 0      | -                              |
| Peak Hour Factor           | 92     | 92                     | 92     | 92                         | 92     | 92                             |
| Heavy Vehicles, %          | 2      | 2                      | 2      | 2                          | 2      | 2                              |
| Mvmt Flow                  | 1305   | 395                    | 348    | 588                        | 237    | 209                            |
|                            |        |                        |        |                            |        |                                |
| Major/Minor                | Major1 |                        | Major2 |                            | Minor1 |                                |
| Conflicting Flow All       | 0      | 0                      | 1700   | 0                          | 2493   | 850                            |
| Stage 1                    | -      | -                      | -      | -                          | 1503   | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 990    | -                              |
| Critical Hdwy              | -      | -                      | 4.14   | -                          | 6.84   | 6.94                           |
| Critical Hdwy Stg 1        | -      | -                      | -      | -                          | 5.84   | -                              |
| Critical Hdwy Stg 2        | -      | -                      | -      | -                          | 5.84   | -                              |
| Follow-up Hdwy             | -      | -                      | 2.22   | -                          | 3.52   | 3.32                           |
| Pot Cap-1 Maneuver         | -      | -                      | 371    | -                          | ~ 24   | 304                            |
| Stage 1                    | -      | -                      | -      | -                          | ~ 170  | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 320    | -                              |
| Platoon blocked, %         | -      | -                      |        | -                          |        |                                |
| Mov Cap-1 Maneuver         | -      | -                      | 371    | -                          | 0      | 304                            |
| Mov Cap-2 Maneuver         | -      | -                      | -      | -                          | 0      | -                              |
| Stage 1                    | -      | -                      | -      | -                          | ~ 170  | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 0      | -                              |
|                            |        |                        |        |                            |        |                                |
| Approach                   | EB     |                        | WB     |                            | NB     |                                |
| HCM Control Delay, s       | 0      |                        | 34.1   |                            | 258.8  |                                |
| HCM LOS                    |        |                        |        |                            | F      |                                |
|                            |        |                        |        |                            |        |                                |
| Minor Lane/Major Mvmt      | NBLn1  | EBT                    | EBR    | WBL                        | WBT    |                                |
| Capacity (veh/h)           | 304    | -                      | -      | 371                        | -      |                                |
| HCM Lane V/C Ratio         | 1.466  | -                      | -      | 0.938                      | -      |                                |
| HCM Control Delay (s)      | 258.8  | -                      | -      | 66.2                       | 15.2   |                                |
| HCM Lane LOS               | F      | -                      | -      | F                          | C      |                                |
| HCM 95th %tile Q(veh)      | 24.5   | -                      | -      | 10.1                       | -      |                                |
| Notes                      |        |                        |        |                            |        |                                |
| ~: Volume exceeds capacity |        | \$: Delay exceeds 300s |        | +: Computation Not Defined |        | *: All major volume in platoon |

## APPENDIX M

### CAPACITY ANALYSIS REPORTS, DRIVEWAY #1 IMPROVEMENTS



## **1. TURN LANE IMPROVEMENTS**

## **WITHOUT WIDENING**



| Intersection             |                                                                                   |        |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|--------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0.5                                                                               |        |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR    | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |        |        |  |  |       |
| Traffic Vol, veh/h       | 693                                                                               | 11     | 1      | 958                                                                               | 15                                                                                | 3     |
| Future Vol, veh/h        | 693                                                                               | 11     | 1      | 958                                                                               | 15                                                                                | 3     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0      | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free   | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None   | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -      | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -      | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -      | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92     | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 7                                                                                 | 11     | 0      | 2                                                                                 | 0                                                                                 | 33    |
| Mvmt Flow                | 753                                                                               | 12     | 1      | 1041                                                                              | 16                                                                                | 3     |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            | Major2 | Minor1 |                                                                                   |                                                                                   |       |
| Conflicting Flow All     | 0                                                                                 | 0      | 765    | 0                                                                                 | 1802                                                                              | 759   |
| Stage 1                  | -                                                                                 | -      | -      | -                                                                                 | 759                                                                               | -     |
| Stage 2                  | -                                                                                 | -      | -      | -                                                                                 | 1043                                                                              | -     |
| Critical Hdwy            | -                                                                                 | -      | 4.1    | -                                                                                 | 6.4                                                                               | 6.53  |
| Critical Hdwy Stg 1      | -                                                                                 | -      | -      | -                                                                                 | 5.4                                                                               | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -      | -      | -                                                                                 | 5.4                                                                               | -     |
| Follow-up Hdwy           | -                                                                                 | -      | 2.2    | -                                                                                 | 3.5                                                                               | 3.597 |
| Pot Cap-1 Maneuver       | -                                                                                 | -      | 857    | -                                                                                 | 89                                                                                | 360   |
| Stage 1                  | -                                                                                 | -      | -      | -                                                                                 | 466                                                                               | -     |
| Stage 2                  | -                                                                                 | -      | -      | -                                                                                 | 342                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -      |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -      | 857    | -                                                                                 | 89                                                                                | 360   |
| Mov Cap-2 Maneuver       | -                                                                                 | -      | -      | -                                                                                 | 89                                                                                | -     |
| Stage 1                  | -                                                                                 | -      | -      | -                                                                                 | 466                                                                               | -     |
| Stage 2                  | -                                                                                 | -      | -      | -                                                                                 | 341                                                                               | -     |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                | WB     |        | NB                                                                                |                                                                                   |       |
| HCM Control Delay, s     | 0                                                                                 | 0      |        | 48.5                                                                              |                                                                                   |       |
| HCM LOS                  | E                                                                                 |        |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT    | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 102                                                                               | -      | -      | 857                                                                               | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.192                                                                             | -      | -      | 0.001                                                                             | -                                                                                 |       |
| HCM Control Delay (s)    | 48.5                                                                              | -      | -      | 9.2                                                                               | 0                                                                                 |       |
| HCM Lane LOS             | E                                                                                 | -      | -      | A                                                                                 | A                                                                                 |       |
| HCM 95th %tile Q(veh)    | 0.7                                                                               | -      | -      | 0                                                                                 | -                                                                                 |       |

| Intersection               |        |                        |        |                            |        |                                |
|----------------------------|--------|------------------------|--------|----------------------------|--------|--------------------------------|
| Int Delay, s/veh           | 61.8   |                        |        |                            |        |                                |
| Movement                   | EBT    | EBR                    | WBL    | WBT                        | NBL    | NBR                            |
| Lane Configurations        | ↑      | ↗                      | ↖      | ↑                          | ↘      |                                |
| Traffic Vol, veh/h         | 516    | 77                     | 82     | 1039                       | 90     | 72                             |
| Future Vol, veh/h          | 516    | 77                     | 82     | 1039                       | 90     | 72                             |
| Conflicting Peds, #/hr     | 0      | 0                      | 0      | 0                          | 0      | 0                              |
| Sign Control               | Free   | Free                   | Free   | Free                       | Stop   | Stop                           |
| RT Channelized             | -      | None                   | -      | None                       | -      | None                           |
| Storage Length             | -      | 200                    | 150    | -                          | 0      | -                              |
| Veh in Median Storage, #   | 0      | -                      | -      | 0                          | 0      | -                              |
| Grade, %                   | 0      | -                      | -      | 0                          | 0      | -                              |
| Peak Hour Factor           | 83     | 83                     | 83     | 83                         | 83     | 83                             |
| Heavy Vehicles, %          | 4      | 3                      | 3      | 2                          | 9      | 10                             |
| Mvmt Flow                  | 622    | 93                     | 99     | 1252                       | 108    | 87                             |
|                            |        |                        |        |                            |        |                                |
| Major/Minor                | Major1 |                        | Major2 |                            | Minor1 |                                |
| Conflicting Flow All       | 0      | 0                      | 715    | 0                          | 2072   | 622                            |
| Stage 1                    | -      | -                      | -      | -                          | 622    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 1450   | -                              |
| Critical Hdwy              | -      | -                      | 4.13   | -                          | 6.49   | 6.3                            |
| Critical Hdwy Stg 1        | -      | -                      | -      | -                          | 5.49   | -                              |
| Critical Hdwy Stg 2        | -      | -                      | -      | -                          | 5.49   | -                              |
| Follow-up Hdwy             | -      | -                      | 2.227  | -                          | 3.581  | 3.39                           |
| Pot Cap-1 Maneuver         | -      | -                      | 881    | -                          | ~ 57   | 472                            |
| Stage 1                    | -      | -                      | -      | -                          | 522    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 208    | -                              |
| Platoon blocked, %         | -      | -                      | -      | -                          | -      | -                              |
| Mov Cap-1 Maneuver         | -      | -                      | 881    | -                          | ~ 51   | 472                            |
| Mov Cap-2 Maneuver         | -      | -                      | -      | -                          | ~ 51   | -                              |
| Stage 1                    | -      | -                      | -      | -                          | 522    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 185    | -                              |
|                            |        |                        |        |                            |        |                                |
| Approach                   | EB     |                        | WB     |                            | NB     |                                |
| HCM Control Delay, s       | 0      |                        | 0.7    |                            | \$ 711 |                                |
| HCM LOS                    |        |                        |        |                            | F      |                                |
|                            |        |                        |        |                            |        |                                |
| Minor Lane/Major Mvmt      | NBLn1  | EBT                    | EBR    | WBL                        | WBT    |                                |
| Capacity (veh/h)           | 84     | -                      | -      | 881                        | -      |                                |
| HCM Lane V/C Ratio         | 2.324  | -                      | -      | 0.112                      | -      |                                |
| HCM Control Delay (s)      | \$ 711 | -                      | -      | 9.6                        | -      |                                |
| HCM Lane LOS               | F      | -                      | -      | A                          | -      |                                |
| HCM 95th %tile Q(veh)      | 18     | -                      | -      | 0.4                        | -      |                                |
| Notes                      |        |                        |        |                            |        |                                |
| ~: Volume exceeds capacity |        | \$: Delay exceeds 300s |        | +: Computation Not Defined |        | *: All major volume in platoon |

HCM 6th TWSC  
4: Driveway #1 & Old Cornelia Highway

2025 - Turn lane improvements  
AM Peak Hour

| Intersection               |          |                        |        |                            |          |                                |     |
|----------------------------|----------|------------------------|--------|----------------------------|----------|--------------------------------|-----|
| Int Delay, s/veh           | 82.2     |                        |        |                            |          |                                |     |
| Movement                   | EBT      | EBR                    | WBL    | WBT                        | NBL      | NBR                            |     |
| Lane Configurations        | ↑        | ↗                      | ↖      | ↑                          | ↖        | ↗                              |     |
| Traffic Vol, veh/h         | 518      | 70                     | 62     | 911                        | 210      | 185                            |     |
| Future Vol, veh/h          | 518      | 70                     | 62     | 911                        | 210      | 185                            |     |
| Conflicting Peds, #/hr     | 0        | 0                      | 0      | 0                          | 0        | 0                              |     |
| Sign Control               | Free     | Free                   | Free   | Free                       | Stop     | Stop                           |     |
| RT Channelized             | -        | Free                   | -      | None                       | -        | Yield                          |     |
| Storage Length             | -        | 100                    | 50     | -                          | 0        | 300                            |     |
| Veh in Median Storage, #   | 0        | -                      | -      | 0                          | 0        | -                              |     |
| Grade, %                   | 0        | -                      | -      | 0                          | 0        | -                              |     |
| Peak Hour Factor           | 92       | 92                     | 92     | 92                         | 92       | 92                             |     |
| Heavy Vehicles, %          | 2        | 2                      | 2      | 2                          | 2        | 2                              |     |
| Mvmt Flow                  | 563      | 76                     | 67     | 990                        | 228      | 201                            |     |
|                            |          |                        |        |                            |          |                                |     |
| Major/Minor                | Major1   |                        | Major2 |                            | Minor1   |                                |     |
| Conflicting Flow All       | 0        | -                      | 563    | 0                          | 1687     | 563                            |     |
| Stage 1                    | -        | -                      | -      | -                          | 563      | -                              |     |
| Stage 2                    | -        | -                      | -      | -                          | 1124     | -                              |     |
| Critical Hdwy              | -        | -                      | 4.12   | -                          | 6.42     | 6.22                           |     |
| Critical Hdwy Stg 1        | -        | -                      | -      | -                          | 5.42     | -                              |     |
| Critical Hdwy Stg 2        | -        | -                      | -      | -                          | 5.42     | -                              |     |
| Follow-up Hdwy             | -        | -                      | 2.218  | -                          | 3.518    | 3.318                          |     |
| Pot Cap-1 Maneuver         | -        | 0                      | 1008   | -                          | ~ 103    | 526                            |     |
| Stage 1                    | -        | 0                      | -      | -                          | 570      | -                              |     |
| Stage 2                    | -        | 0                      | -      | -                          | 310      | -                              |     |
| Platoon blocked, %         | -        |                        |        | -                          |          |                                |     |
| Mov Cap-1 Maneuver         | -        | -                      | 1008   | -                          | ~ 96     | 526                            |     |
| Mov Cap-2 Maneuver         | -        | -                      | -      | -                          | ~ 96     | -                              |     |
| Stage 1                    | -        | -                      | -      | -                          | 570      | -                              |     |
| Stage 2                    | -        | -                      | -      | -                          | 290      | -                              |     |
|                            |          |                        |        |                            |          |                                |     |
| Approach                   | EB       |                        | WB     |                            | NB       |                                |     |
| HCM Control Delay, s       | 0        |                        | 0.6    |                            | \$ 391.1 |                                |     |
| HCM LOS                    | F        |                        |        |                            |          |                                |     |
|                            |          |                        |        |                            |          |                                |     |
| Minor Lane/Major Mvmt      | NBLn1    |                        | NBLn2  |                            | EBT      | WBL                            | WBT |
| Capacity (veh/h)           | 96       |                        | 526    |                            | -        | 1008                           | -   |
| HCM Lane V/C Ratio         | 2.378    |                        | 0.382  |                            | -        | 0.067                          | -   |
| HCM Control Delay (s)      | \$ 721.6 |                        | 16     |                            | -        | 8.8                            | -   |
| HCM Lane LOS               | F        |                        | C      |                            | -        | A                              | -   |
| HCM 95th %tile Q(veh)      | 20.7     |                        | 1.8    |                            | -        | 0.2                            | -   |
| Notes                      |          |                        |        |                            |          |                                |     |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |        | +: Computation Not Defined |          | *: All major volume in platoon |     |

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0.3                                                                               |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 1144                                                                              | 15   | 0      | 666                                                                               | 8                                                                                 | 0     |
| Future Vol, veh/h        | 1144                                                                              | 15   | 0      | 666                                                                               | 8                                                                                 | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 90                                                                                | 90   | 90     | 90                                                                                | 90                                                                                | 90    |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2      | 1                                                                                 | 14                                                                                | 2     |
| Mvmt Flow                | 1271                                                                              | 17   | 0      | 740                                                                               | 9                                                                                 | 0     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 1288   | 0                                                                                 | 2020                                                                              | 1280  |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 1280                                                                              | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 740                                                                               | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.54                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.54                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.54                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.626                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 538    | -                                                                                 | 59                                                                                | 202   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 246                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 451                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 538    | -                                                                                 | 59                                                                                | 202   |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 59                                                                                | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 246                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 451                                                                               | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 76.6                                                                              |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | F                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 59                                                                                | -    | -      | 538                                                                               | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.151                                                                             | -    | -      | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 76.6                                                                              | -    | -      | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | F                                                                                 | -    | -      | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | 0.5                                                                               | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 5.4    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑      | ↗    | ↘      | ↑     | ↘↗     |      |
| Traffic Vol, veh/h       | 1219   | 25   | 27     | 580   | 31     | 52   |
| Future Vol, veh/h        | 1219   | 25   | 27     | 580   | 31     | 52   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1325   | 27   | 29     | 630   | 34     | 57   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1352   | 0     | 2013   | 1325 |
| Stage 1                  | -      | -    | -      | -     | 1325   | -    |
| Stage 2                  | -      | -    | -      | -     | 688    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.4    | 6.2  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.4    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.4    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 516    | -     | 65     | 192  |
| Stage 1                  | -      | -    | -      | -     | 251    | -    |
| Stage 2                  | -      | -    | -      | -     | 503    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 516    | -     | 61     | 192  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 61     | -    |
| Stage 1                  | -      | -    | -      | -     | 251    | -    |
| Stage 2                  | -      | -    | -      | -     | 475    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.6    |       | 121.7  |      |
| HCM LOS                  |        |      |        |       | F      |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 107    | -    | -      | 516   | -      |      |
| HCM Lane V/C Ratio       | 0.843  | -    | -      | 0.057 | -      |      |
| HCM Control Delay (s)    | 121.7  | -    | -      | 12.4  | -      |      |
| HCM Lane LOS             | F      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 4.9    | -    | -      | 0.2   | -      |      |



HCM 6th TWSC  
4: Driveway #1 & Old Cornelia Highway

2025 - Turn Lane Improvements  
PM Peak Hour

| Intersection               |           |                        |       |                            |       |                                |
|----------------------------|-----------|------------------------|-------|----------------------------|-------|--------------------------------|
| Int Delay, s/veh           | 120.4     |                        |       |                            |       |                                |
| Movement                   | EBT       | EBR                    | WBL   | WBT                        | NBL   | NBR                            |
| Lane Configurations        | ↑         | ↗                      | ↖     | ↑                          | ↖     | ↗                              |
| Traffic Vol, veh/h         | 1035      | 236                    | 208   | 466                        | 141   | 124                            |
| Future Vol, veh/h          | 1035      | 236                    | 208   | 466                        | 141   | 124                            |
| Conflicting Peds, #/hr     | 0         | 0                      | 0     | 0                          | 0     | 0                              |
| Sign Control               | Free      | Free                   | Free  | Free                       | Stop  | Stop                           |
| RT Channelized             | -         | Free                   | -     | None                       | -     | Yield                          |
| Storage Length             | -         | 100                    | 50    | -                          | 0     | 300                            |
| Veh in Median Storage, #   | 0         | -                      | -     | 0                          | 0     | -                              |
| Grade, %                   | 0         | -                      | -     | 0                          | 0     | -                              |
| Peak Hour Factor           | 92        | 92                     | 92    | 92                         | 92    | 92                             |
| Heavy Vehicles, %          | 2         | 2                      | 2     | 2                          | 2     | 2                              |
| Mvmt Flow                  | 1125      | 257                    | 226   | 507                        | 153   | 135                            |
|                            |           |                        |       |                            |       |                                |
| Major/Minor                | Major1    | Major2                 |       | Minor1                     |       |                                |
| Conflicting Flow All       | 0         | -                      | 1125  | 0                          | 2084  | 1125                           |
| Stage 1                    | -         | -                      | -     | -                          | 1125  | -                              |
| Stage 2                    | -         | -                      | -     | -                          | 959   | -                              |
| Critical Hdwy              | -         | -                      | 4.12  | -                          | 6.42  | 6.22                           |
| Critical Hdwy Stg 1        | -         | -                      | -     | -                          | 5.42  | -                              |
| Critical Hdwy Stg 2        | -         | -                      | -     | -                          | 5.42  | -                              |
| Follow-up Hdwy             | -         | -                      | 2.218 | -                          | 3.518 | 3.318                          |
| Pot Cap-1 Maneuver         | -         | 0                      | 621   | -                          | ~ 58  | 250                            |
| Stage 1                    | -         | 0                      | -     | -                          | 310   | -                              |
| Stage 2                    | -         | 0                      | -     | -                          | 372   | -                              |
| Platoon blocked, %         | -         |                        |       | -                          |       |                                |
| Mov Cap-1 Maneuver         | -         | -                      | 621   | -                          | ~ 37  | 250                            |
| Mov Cap-2 Maneuver         | -         | -                      | -     | -                          | ~ 37  | -                              |
| Stage 1                    | -         | -                      | -     | -                          | 310   | -                              |
| Stage 2                    | -         | -                      | -     | -                          | 237   | -                              |
|                            |           |                        |       |                            |       |                                |
| Approach                   | EB        | WB                     |       | NB                         |       |                                |
| HCM Control Delay, s       | 0         | 4.3                    |       | \$ 886.2                   |       |                                |
| HCM LOS                    | F         |                        |       |                            |       |                                |
|                            |           |                        |       |                            |       |                                |
| Minor Lane/Major Mvmt      | NBLn1     | NBLn2                  | EBT   | WBL                        | WBT   |                                |
| Capacity (veh/h)           | 37        | 250                    | -     | 621                        | -     |                                |
| HCM Lane V/C Ratio         | 4.142     | 0.539                  | -     | 0.364                      | -     |                                |
| HCM Control Delay (s)      | \$ 1634.6 | 35.1                   | -     | 14.1                       | -     |                                |
| HCM Lane LOS               | F         | E                      | -     | B                          | -     |                                |
| HCM 95th %tile Q(veh)      | 17.8      | 2.9                    | -     | 1.7                        | -     |                                |
| Notes                      |           |                        |       |                            |       |                                |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |       | +: Computation Not Defined |       | *: All major volume in platoon |

| Intersection             |                                                                                   |      |        |                                                                                   |        |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.7                                                                               |      |        |                                                                                   |        |                                                                                   |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL    | NBR                                                                               |
| Lane Configurations      |  |      |        |  |        |  |
| Traffic Vol, veh/h       | 779                                                                               | 11   | 1      | 1043                                                                              | 16     | 3                                                                                 |
| Future Vol, veh/h        | 779                                                                               | 11   | 1      | 1043                                                                              | 16     | 3                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0      | 0                                                                                 |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop   | Stop                                                                              |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -      | None                                                                              |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0      | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0      | -                                                                                 |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0      | -                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92     | 92                                                                                |
| Heavy Vehicles, %        | 7                                                                                 | 11   | 0      | 2                                                                                 | 0      | 33                                                                                |
| Mvmt Flow                | 847                                                                               | 12   | 1      | 1134                                                                              | 17     | 3                                                                                 |
|                          |                                                                                   |      |        |                                                                                   |        |                                                                                   |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1 |                                                                                   |
| Conflicting Flow All     | 0                                                                                 | 0    | 859    | 0                                                                                 | 1989   | 853                                                                               |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 853    | -                                                                                 |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1136   | -                                                                                 |
| Critical Hdwy            | -                                                                                 | -    | 4.1    | -                                                                                 | 6.4    | 6.53                                                                              |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.4    | -                                                                                 |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.4    | -                                                                                 |
| Follow-up Hdwy           | -                                                                                 | -    | 2.2    | -                                                                                 | 3.5    | 3.597                                                                             |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 791    | -                                                                                 | 68     | 317                                                                               |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 421    | -                                                                                 |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 309    | -                                                                                 |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |        |                                                                                   |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 791    | -                                                                                 | 68     | 317                                                                               |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 68     | -                                                                                 |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 421    | -                                                                                 |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 308    | -                                                                                 |
|                          |                                                                                   |      |        |                                                                                   |        |                                                                                   |
|                          |                                                                                   |      |        |                                                                                   |        |                                                                                   |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB     |                                                                                   |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 67     |                                                                                   |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | F      |                                                                                   |
|                          |                                                                                   |      |        |                                                                                   |        |                                                                                   |
|                          |                                                                                   |      |        |                                                                                   |        |                                                                                   |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT    |                                                                                   |
| Capacity (veh/h)         | 78                                                                                | -    | -      | 791                                                                               | -      |                                                                                   |
| HCM Lane V/C Ratio       | 0.265                                                                             | -    | -      | 0.001                                                                             | -      |                                                                                   |
| HCM Control Delay (s)    | 67                                                                                | -    | -      | 9.6                                                                               | 0      |                                                                                   |
| HCM Lane LOS             | F                                                                                 | -    | -      | A                                                                                 | A      |                                                                                   |
| HCM 95th %tile Q(veh)    | 1                                                                                 | -    | -      | 0                                                                                 | -      |                                                                                   |

| Intersection               |           |                        |        |                            |           |                                |
|----------------------------|-----------|------------------------|--------|----------------------------|-----------|--------------------------------|
| Int Delay, s/veh           | 111       |                        |        |                            |           |                                |
| Movement                   | EBT       | EBR                    | WBL    | WBT                        | NBL       | NBR                            |
| Lane Configurations        | ↑         | ↗                      | ↖      | ↑                          | ↘         |                                |
| Traffic Vol, veh/h         | 567       | 83                     | 94     | 1150                       | 97        | 80                             |
| Future Vol, veh/h          | 567       | 83                     | 94     | 1150                       | 97        | 80                             |
| Conflicting Peds, #/hr     | 0         | 0                      | 0      | 0                          | 0         | 0                              |
| Sign Control               | Free      | Free                   | Free   | Free                       | Stop      | Stop                           |
| RT Channelized             | -         | None                   | -      | None                       | -         | None                           |
| Storage Length             | -         | 200                    | 150    | -                          | 0         | -                              |
| Veh in Median Storage, #   | 0         | -                      | -      | 0                          | 0         | -                              |
| Grade, %                   | 0         | -                      | -      | 0                          | 0         | -                              |
| Peak Hour Factor           | 83        | 83                     | 83     | 83                         | 83        | 83                             |
| Heavy Vehicles, %          | 4         | 3                      | 3      | 2                          | 9         | 10                             |
| Mvmt Flow                  | 683       | 100                    | 113    | 1386                       | 117       | 96                             |
|                            |           |                        |        |                            |           |                                |
| Major/Minor                | Major1    |                        | Major2 |                            | Minor1    |                                |
| Conflicting Flow All       | 0         | 0                      | 783    | 0                          | 2295      | 683                            |
| Stage 1                    | -         | -                      | -      | -                          | 683       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 1612      | -                              |
| Critical Hdwy              | -         | -                      | 4.13   | -                          | 6.49      | 6.3                            |
| Critical Hdwy Stg 1        | -         | -                      | -      | -                          | 5.49      | -                              |
| Critical Hdwy Stg 2        | -         | -                      | -      | -                          | 5.49      | -                              |
| Follow-up Hdwy             | -         | -                      | 2.227  | -                          | 3.581     | 3.39                           |
| Pot Cap-1 Maneuver         | -         | -                      | 831    | -                          | ~ 41      | 436                            |
| Stage 1                    | -         | -                      | -      | -                          | 489       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 173       | -                              |
| Platoon blocked, %         | -         | -                      |        | -                          |           |                                |
| Mov Cap-1 Maneuver         | -         | -                      | 831    | -                          | ~ 35      | 436                            |
| Mov Cap-2 Maneuver         | -         | -                      | -      | -                          | ~ 35      | -                              |
| Stage 1                    | -         | -                      | -      | -                          | 489       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 149       | -                              |
|                            |           |                        |        |                            |           |                                |
| Approach                   | EB        |                        | WB     |                            | NB        |                                |
| HCM Control Delay, s       | 0         |                        | 0.8    |                            | \$ 1292.6 |                                |
| HCM LOS                    |           |                        |        |                            | F         |                                |
|                            |           |                        |        |                            |           |                                |
| Minor Lane/Major Mvmt      | NBLn1     | EBT                    | EBR    | WBL                        | WBT       |                                |
| Capacity (veh/h)           | 60        | -                      | -      | 831                        | -         |                                |
| HCM Lane V/C Ratio         | 3.554     | -                      | -      | 0.136                      | -         |                                |
| HCM Control Delay (s)      | \$ 1292.6 | -                      | -      | 10                         | -         |                                |
| HCM Lane LOS               | F         | -                      | -      | B                          | -         |                                |
| HCM 95th %tile Q(veh)      | 22.7      | -                      | -      | 0.5                        | -         |                                |
| Notes                      |           |                        |        |                            |           |                                |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |        | +: Computation Not Defined |           | *: All major volume in platoon |

| Intersection               |           |                        |        |                            |          |                                |     |
|----------------------------|-----------|------------------------|--------|----------------------------|----------|--------------------------------|-----|
| Int Delay, s/veh           | 174.1     |                        |        |                            |          |                                |     |
| Movement                   | EBT       | EBR                    | WBL    | WBT                        | NBL      | NBR                            |     |
| Lane Configurations        | ↑         | ↗                      | ↖      | ↑                          | ↖        | ↗                              |     |
| Traffic Vol, veh/h         | 557       | 90                     | 80     | 979                        | 265      | 233                            |     |
| Future Vol, veh/h          | 557       | 90                     | 80     | 979                        | 265      | 233                            |     |
| Conflicting Peds, #/hr     | 0         | 0                      | 0      | 0                          | 0        | 0                              |     |
| Sign Control               | Free      | Free                   | Free   | Free                       | Stop     | Stop                           |     |
| RT Channelized             | -         | Free                   | -      | None                       | -        | Yield                          |     |
| Storage Length             | -         | 100                    | 50     | -                          | 0        | 300                            |     |
| Veh in Median Storage, #   | 0         | -                      | -      | 0                          | 0        | -                              |     |
| Grade, %                   | 0         | -                      | -      | 0                          | 0        | -                              |     |
| Peak Hour Factor           | 92        | 92                     | 92     | 92                         | 92       | 92                             |     |
| Heavy Vehicles, %          | 2         | 2                      | 2      | 2                          | 2        | 2                              |     |
| Mvmt Flow                  | 605       | 98                     | 87     | 1064                       | 288      | 253                            |     |
|                            |           |                        |        |                            |          |                                |     |
| Major/Minor                | Major1    |                        | Major2 |                            | Minor1   |                                |     |
| Conflicting Flow All       | 0         | -                      | 605    | 0                          | 1843     | 605                            |     |
| Stage 1                    | -         | -                      | -      | -                          | 605      | -                              |     |
| Stage 2                    | -         | -                      | -      | -                          | 1238     | -                              |     |
| Critical Hdwy              | -         | -                      | 4.12   | -                          | 6.42     | 6.22                           |     |
| Critical Hdwy Stg 1        | -         | -                      | -      | -                          | 5.42     | -                              |     |
| Critical Hdwy Stg 2        | -         | -                      | -      | -                          | 5.42     | -                              |     |
| Follow-up Hdwy             | -         | -                      | 2.218  | -                          | 3.518    | 3.318                          |     |
| Pot Cap-1 Maneuver         | -         | 0                      | 973    | -                          | ~ 83     | 498                            |     |
| Stage 1                    | -         | 0                      | -      | -                          | 545      | -                              |     |
| Stage 2                    | -         | 0                      | -      | -                          | ~ 274    | -                              |     |
| Platoon blocked, %         | -         |                        |        | -                          |          |                                |     |
| Mov Cap-1 Maneuver         | -         | -                      | 973    | -                          | ~ 76     | 498                            |     |
| Mov Cap-2 Maneuver         | -         | -                      | -      | -                          | ~ 76     | -                              |     |
| Stage 1                    | -         | -                      | -      | -                          | 545      | -                              |     |
| Stage 2                    | -         | -                      | -      | -                          | ~ 250    | -                              |     |
|                            |           |                        |        |                            |          |                                |     |
| Approach                   | EB        |                        | WB     |                            | NB       |                                |     |
| HCM Control Delay, s       | 0         |                        | 0.7    |                            | \$ 737.7 |                                |     |
| HCM LOS                    |           |                        |        |                            | F        |                                |     |
|                            |           |                        |        |                            |          |                                |     |
| Minor Lane/Major Mvmt      | NBLn1     |                        | NBLn2  |                            | EBT      | WBL                            | WBT |
| Capacity (veh/h)           | 76        |                        | 498    |                            | -        | 973                            | -   |
| HCM Lane V/C Ratio         | 3.79      |                        | 0.509  |                            | -        | 0.089                          | -   |
| HCM Control Delay (s)      | \$ 1369.2 |                        | 19.5   |                            | -        | 9.1                            | -   |
| HCM Lane LOS               | F         |                        | C      |                            | -        | A                              | -   |
| HCM 95th %tile Q(veh)      | 30.1      |                        | 2.8    |                            | -        | 0.3                            | -   |
| Notes                      |           |                        |        |                            |          |                                |     |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |        | +: Computation Not Defined |          | *: All major volume in platoon |     |

HCM 6th TWSC  
4: Driveway #1 & Old Cornelia Highway

2030 - Turn Lane Improvements  
PM Peak Hour

| Intersection               |           |                        |        |                            |           |                                |     |
|----------------------------|-----------|------------------------|--------|----------------------------|-----------|--------------------------------|-----|
| Int Delay, s/veh           | 311       |                        |        |                            |           |                                |     |
| Movement                   | EBT       | EBR                    | WBL    | WBT                        | NBL       | NBR                            |     |
| Lane Configurations        | ↑         | ↗                      | ↖      | ↑                          | ↖         | ↗                              |     |
| Traffic Vol, veh/h         | 1113      | 288                    | 253    | 501                        | 176       | 154                            |     |
| Future Vol, veh/h          | 1113      | 288                    | 253    | 501                        | 176       | 154                            |     |
| Conflicting Peds, #/hr     | 0         | 0                      | 0      | 0                          | 0         | 0                              |     |
| Sign Control               | Free      | Free                   | Free   | Free                       | Stop      | Stop                           |     |
| RT Channelized             | -         | Free                   | -      | None                       | -         | Yield                          |     |
| Storage Length             | -         | 100                    | 50     | -                          | 0         | 300                            |     |
| Veh in Median Storage, #   | 0         | -                      | -      | 0                          | 0         | -                              |     |
| Grade, %                   | 0         | -                      | -      | 0                          | 0         | -                              |     |
| Peak Hour Factor           | 92        | 92                     | 92     | 92                         | 92        | 92                             |     |
| Heavy Vehicles, %          | 2         | 2                      | 2      | 2                          | 2         | 2                              |     |
| Mvmt Flow                  | 1210      | 313                    | 275    | 545                        | 191       | 167                            |     |
|                            |           |                        |        |                            |           |                                |     |
| Major/Minor                | Major1    |                        | Major2 |                            | Minor1    |                                |     |
| Conflicting Flow All       | 0         | -                      | 1210   | 0                          | 2305      | 1210                           |     |
| Stage 1                    | -         | -                      | -      | -                          | 1210      | -                              |     |
| Stage 2                    | -         | -                      | -      | -                          | 1095      | -                              |     |
| Critical Hdwy              | -         | -                      | 4.12   | -                          | 6.42      | 6.22                           |     |
| Critical Hdwy Stg 1        | -         | -                      | -      | -                          | 5.42      | -                              |     |
| Critical Hdwy Stg 2        | -         | -                      | -      | -                          | 5.42      | -                              |     |
| Follow-up Hdwy             | -         | -                      | 2.218  | -                          | 3.518     | 3.318                          |     |
| Pot Cap-1 Maneuver         | -         | 0                      | 577    | -                          | ~ 42      | 223                            |     |
| Stage 1                    | -         | 0                      | -      | -                          | 282       | -                              |     |
| Stage 2                    | -         | 0                      | -      | -                          | 321       | -                              |     |
| Platoon blocked, %         | -         |                        |        | -                          |           |                                |     |
| Mov Cap-1 Maneuver         | -         | -                      | 577    | -                          | ~ 22      | 223                            |     |
| Mov Cap-2 Maneuver         | -         | -                      | -      | -                          | ~ 22      | -                              |     |
| Stage 1                    | -         | -                      | -      | -                          | 282       | -                              |     |
| Stage 2                    | -         | -                      | -      | -                          | ~ 168     | -                              |     |
|                            |           |                        |        |                            |           |                                |     |
| Approach                   | EB        |                        | WB     |                            | NB        |                                |     |
| HCM Control Delay, s       | 0         |                        | 5.6    |                            | \$ 2057.7 |                                |     |
| HCM LOS                    |           |                        |        |                            | F         |                                |     |
|                            |           |                        |        |                            |           |                                |     |
| Minor Lane/Major Mvmt      | NBLn1     |                        | NBLn2  |                            | EBT       | WBL                            | WBT |
| Capacity (veh/h)           | 22        |                        | 223    |                            | -         | 577                            | -   |
| HCM Lane V/C Ratio         | 8.696     |                        | 0.751  |                            | -         | 0.477                          | -   |
| HCM Control Delay (s)      | \$ 3807.6 |                        | 57.8   |                            | -         | 16.8                           | -   |
| HCM Lane LOS               | F         |                        | F      |                            | -         | C                              | -   |
| HCM 95th %tile Q(veh)      | 24.1      |                        | 5.2    |                            | -         | 2.6                            | -   |
| Notes                      |           |                        |        |                            |           |                                |     |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |        | +: Computation Not Defined |           | *: All major volume in platoon |     |



| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.5                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 1251                                                                              | 16   | 0    | 745                                                                               | 9                                                                                 | 0    |
| Future Vol, veh/h        | 1251                                                                              | 16   | 0    | 745                                                                               | 9                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                | 90   |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2    | 1                                                                                 | 14                                                                                | 2    |
| Mvmt Flow                | 1390                                                                              | 18   | 0    | 828                                                                               | 10                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1408   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 485    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 485    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB    |
|----------------------|----|----|-------|
| HCM Control Delay, s | 0  | 0  | 109.4 |
| HCM LOS              |    |    | F     |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 44    | -   | -   | 485 | -   |
| HCM Lane V/C Ratio    | 0.227 | -   | -   | -   | -   |
| HCM Control Delay (s) | 109.4 | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.8   | -   | -   | 0   | -   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 11.9 |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑    | ↗    | ↘    | ↑    | ↘    | ↗    |
| Traffic Vol, veh/h       | 1339 | 27   | 33   | 644  | 33   | 62   |
| Future Vol, veh/h        | 1339 | 27   | 33   | 644  | 33   | 62   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | 200  | 150  | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 9    | 0    | 0    | 2    | 0    | 0    |
| Mvmt Flow                | 1455 | 29   | 36   | 700  | 36   | 67   |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1484   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.1    |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.2    |
| Pot Cap-1 Maneuver   | -      | -      | 459    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 459    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB  | NB    |
|----------------------|----|-----|-------|
| HCM Control Delay, s | 0  | 0.7 | 261.8 |
| HCM LOS              |    |     | F     |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 84    | -   | -   | 459   | -   |
| HCM Lane V/C Ratio    | 1.229 | -   | -   | 0.078 | -   |
| HCM Control Delay (s) | 261.8 | -   | -   | 13.5  | -   |
| HCM Lane LOS          | F     | -   | -   | B     | -   |
| HCM 95th %tile Q(veh) | 7.5   | -   | -   | 0.3   | -   |

HCM 6th TWSC  
4: Driveway #1 & Old Cornelia Highway

2030 - Turn Lane Improvements  
PM Peak Hour

| Intersection               |           |                        |        |                            |           |                                |     |
|----------------------------|-----------|------------------------|--------|----------------------------|-----------|--------------------------------|-----|
| Int Delay, s/veh           | 311       |                        |        |                            |           |                                |     |
| Movement                   | EBT       | EBR                    | WBL    | WBT                        | NBL       | NBR                            |     |
| Lane Configurations        | ↑         | ↗                      | ↖      | ↑                          | ↖         | ↗                              |     |
| Traffic Vol, veh/h         | 1113      | 288                    | 253    | 501                        | 176       | 154                            |     |
| Future Vol, veh/h          | 1113      | 288                    | 253    | 501                        | 176       | 154                            |     |
| Conflicting Peds, #/hr     | 0         | 0                      | 0      | 0                          | 0         | 0                              |     |
| Sign Control               | Free      | Free                   | Free   | Free                       | Stop      | Stop                           |     |
| RT Channelized             | -         | Free                   | -      | None                       | -         | Yield                          |     |
| Storage Length             | -         | 100                    | 50     | -                          | 0         | 300                            |     |
| Veh in Median Storage, #   | 0         | -                      | -      | 0                          | 0         | -                              |     |
| Grade, %                   | 0         | -                      | -      | 0                          | 0         | -                              |     |
| Peak Hour Factor           | 92        | 92                     | 92     | 92                         | 92        | 92                             |     |
| Heavy Vehicles, %          | 2         | 2                      | 2      | 2                          | 2         | 2                              |     |
| Mvmt Flow                  | 1210      | 313                    | 275    | 545                        | 191       | 167                            |     |
|                            |           |                        |        |                            |           |                                |     |
| Major/Minor                | Major1    |                        | Major2 |                            | Minor1    |                                |     |
| Conflicting Flow All       | 0         | -                      | 1210   | 0                          | 2305      | 1210                           |     |
| Stage 1                    | -         | -                      | -      | -                          | 1210      | -                              |     |
| Stage 2                    | -         | -                      | -      | -                          | 1095      | -                              |     |
| Critical Hdwy              | -         | -                      | 4.12   | -                          | 6.42      | 6.22                           |     |
| Critical Hdwy Stg 1        | -         | -                      | -      | -                          | 5.42      | -                              |     |
| Critical Hdwy Stg 2        | -         | -                      | -      | -                          | 5.42      | -                              |     |
| Follow-up Hdwy             | -         | -                      | 2.218  | -                          | 3.518     | 3.318                          |     |
| Pot Cap-1 Maneuver         | -         | 0                      | 577    | -                          | ~ 42      | 223                            |     |
| Stage 1                    | -         | 0                      | -      | -                          | 282       | -                              |     |
| Stage 2                    | -         | 0                      | -      | -                          | 321       | -                              |     |
| Platoon blocked, %         | -         |                        |        | -                          |           |                                |     |
| Mov Cap-1 Maneuver         | -         | -                      | 577    | -                          | ~ 22      | 223                            |     |
| Mov Cap-2 Maneuver         | -         | -                      | -      | -                          | ~ 22      | -                              |     |
| Stage 1                    | -         | -                      | -      | -                          | 282       | -                              |     |
| Stage 2                    | -         | -                      | -      | -                          | ~ 168     | -                              |     |
|                            |           |                        |        |                            |           |                                |     |
| Approach                   | EB        |                        | WB     |                            | NB        |                                |     |
| HCM Control Delay, s       | 0         |                        | 5.6    |                            | \$ 2057.7 |                                |     |
| HCM LOS                    |           |                        |        |                            | F         |                                |     |
|                            |           |                        |        |                            |           |                                |     |
| Minor Lane/Major Mvmt      | NBLn1     |                        | NBLn2  |                            | EBT       | WBL                            | WBT |
| Capacity (veh/h)           | 22        |                        | 223    |                            | -         | 577                            | -   |
| HCM Lane V/C Ratio         | 8.696     |                        | 0.751  |                            | -         | 0.477                          | -   |
| HCM Control Delay (s)      | \$ 3807.6 |                        | 57.8   |                            | -         | 16.8                           | -   |
| HCM Lane LOS               | F         |                        | F      |                            | -         | C                              | -   |
| HCM 95th %tile Q(veh)      | 24.1      |                        | 5.2    |                            | -         | 2.6                            | -   |
| Notes                      |           |                        |        |                            |           |                                |     |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |        | +: Computation Not Defined |           | *: All major volume in platoon |     |

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 1                                                                                 |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 879                                                                               | 12   | 1      | 1137                                                                              | 17                                                                                | 4     |
| Future Vol, veh/h        | 879                                                                               | 12   | 1      | 1137                                                                              | 17                                                                                | 4     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 7                                                                                 | 11   | 0      | 2                                                                                 | 0                                                                                 | 33    |
| Mvmt Flow                | 955                                                                               | 13   | 1      | 1236                                                                              | 18                                                                                | 4     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 968    | 0                                                                                 | 2200                                                                              | 962   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 962                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1238                                                                              | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.1    | -                                                                                 | 6.4                                                                               | 6.53  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.4                                                                               | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.4                                                                               | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.2    | -                                                                                 | 3.5                                                                               | 3.597 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 720    | -                                                                                 | 50                                                                                | 272   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 374                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 276                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 720    | -                                                                                 | 50                                                                                | 272   |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 50                                                                                | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 374                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 275                                                                               | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 100.3                                                                             |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | F                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 59                                                                                | -    | -      | 720                                                                               | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.387                                                                             | -    | -      | 0.002                                                                             | -                                                                                 |       |
| HCM Control Delay (s)    | 100.3                                                                             | -    | -      | 10                                                                                | 0                                                                                 |       |
| HCM Lane LOS             | F                                                                                 | -    | -      | B                                                                                 | A                                                                                 |       |
| HCM 95th %tile Q(veh)    | 1.4                                                                               | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection               |           |                        |        |                            |           |                                |
|----------------------------|-----------|------------------------|--------|----------------------------|-----------|--------------------------------|
| Int Delay, s/veh           | 195.9     |                        |        |                            |           |                                |
| Movement                   | EBT       | EBR                    | WBL    | WBT                        | NBL       | NBR                            |
| Lane Configurations        | ↑         | ↗                      | ↖      | ↑                          | ↘         |                                |
| Traffic Vol, veh/h         | 623       | 90                     | 109    | 1277                       | 105       | 89                             |
| Future Vol, veh/h          | 623       | 90                     | 109    | 1277                       | 105       | 89                             |
| Conflicting Peds, #/hr     | 0         | 0                      | 0      | 0                          | 0         | 0                              |
| Sign Control               | Free      | Free                   | Free   | Free                       | Stop      | Stop                           |
| RT Channelized             | -         | None                   | -      | None                       | -         | None                           |
| Storage Length             | -         | 200                    | 150    | -                          | 0         | -                              |
| Veh in Median Storage, #   | 0         | -                      | -      | 0                          | 0         | -                              |
| Grade, %                   | 0         | -                      | -      | 0                          | 0         | -                              |
| Peak Hour Factor           | 83        | 83                     | 83     | 83                         | 83        | 83                             |
| Heavy Vehicles, %          | 4         | 3                      | 3      | 2                          | 9         | 10                             |
| Mvmt Flow                  | 751       | 108                    | 131    | 1539                       | 127       | 107                            |
|                            |           |                        |        |                            |           |                                |
| Major/Minor                | Major1    |                        | Major2 |                            | Minor1    |                                |
| Conflicting Flow All       | 0         | 0                      | 859    | 0                          | 2552      | 751                            |
| Stage 1                    | -         | -                      | -      | -                          | 751       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 1801      | -                              |
| Critical Hdwy              | -         | -                      | 4.13   | -                          | 6.49      | 6.3                            |
| Critical Hdwy Stg 1        | -         | -                      | -      | -                          | 5.49      | -                              |
| Critical Hdwy Stg 2        | -         | -                      | -      | -                          | 5.49      | -                              |
| Follow-up Hdwy             | -         | -                      | 2.227  | -                          | 3.581     | 3.39                           |
| Pot Cap-1 Maneuver         | -         | -                      | 778    | -                          | ~ 28      | 398                            |
| Stage 1                    | -         | -                      | -      | -                          | 454       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 139       | -                              |
| Platoon blocked, %         | -         | -                      |        | -                          |           |                                |
| Mov Cap-1 Maneuver         | -         | -                      | 778    | -                          | ~ 23      | 398                            |
| Mov Cap-2 Maneuver         | -         | -                      | -      | -                          | ~ 23      | -                              |
| Stage 1                    | -         | -                      | -      | -                          | 454       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | ~ 116     | -                              |
|                            |           |                        |        |                            |           |                                |
|                            |           |                        |        |                            |           |                                |
| Approach                   | EB        |                        | WB     |                            | NB        |                                |
| HCM Control Delay, s       | 0         |                        | 0.8    |                            | \$ 2309.8 |                                |
| HCM LOS                    | F         |                        |        |                            |           |                                |
|                            |           |                        |        |                            |           |                                |
|                            |           |                        |        |                            |           |                                |
| Minor Lane/Major Mvmt      | NBLn1     | EBT                    | EBR    | WBL                        | WBT       |                                |
| Capacity (veh/h)           | 41        | -                      | -      | 778                        | -         |                                |
| HCM Lane V/C Ratio         | 5.701     | -                      | -      | 0.169                      | -         |                                |
| HCM Control Delay (s)      | \$ 2309.8 | -                      | -      | 10.6                       | -         |                                |
| HCM Lane LOS               | F         | -                      | -      | B                          | -         |                                |
| HCM 95th %tile Q(veh)      | 27.3      | -                      | -      | 0.6                        | -         |                                |
| Notes                      |           |                        |        |                            |           |                                |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |        | +: Computation Not Defined |           | *: All major volume in platoon |



HCM 6th TWSC  
4: Driveway #1 & Old Cornelia Highway

2035 - Turn Lane Improvements  
AM Peak Hour

| Intersection               |           |                        |        |      |                            |       |                                |
|----------------------------|-----------|------------------------|--------|------|----------------------------|-------|--------------------------------|
| Int Delay, s/veh           | 401.9     |                        |        |      |                            |       |                                |
| Movement                   | EBT       | EBR                    | WBL    | WBT  | NBL                        | NBR   |                                |
| Lane Configurations        | ↑         | ↗                      | ↖      | ↑    | ↖                          | ↗     |                                |
| Traffic Vol, veh/h         | 601       | 111                    | 98     | 1156 | 329                        | 290   |                                |
| Future Vol, veh/h          | 601       | 111                    | 98     | 1156 | 329                        | 290   |                                |
| Conflicting Peds, #/hr     | 0         | 0                      | 0      | 0    | 0                          | 0     |                                |
| Sign Control               | Free      | Free                   | Free   | Free | Stop                       | Stop  |                                |
| RT Channelized             | -         | Free                   | -      | None | -                          | Yield |                                |
| Storage Length             | -         | 100                    | 50     | -    | 0                          | 300   |                                |
| Veh in Median Storage, #   | 0         | -                      | -      | 0    | 0                          | -     |                                |
| Grade, %                   | 0         | -                      | -      | 0    | 0                          | -     |                                |
| Peak Hour Factor           | 92        | 92                     | 92     | 92   | 92                         | 92    |                                |
| Heavy Vehicles, %          | 2         | 2                      | 2      | 2    | 2                          | 2     |                                |
| Mvmt Flow                  | 653       | 121                    | 107    | 1257 | 358                        | 315   |                                |
|                            |           |                        |        |      |                            |       |                                |
| Major/Minor                | Major1    |                        | Major2 |      | Minor1                     |       |                                |
| Conflicting Flow All       | 0         | -                      | 653    | 0    | 2124                       | 653   |                                |
| Stage 1                    | -         | -                      | -      | -    | 653                        | -     |                                |
| Stage 2                    | -         | -                      | -      | -    | 1471                       | -     |                                |
| Critical Hdwy              | -         | -                      | 4.12   | -    | 6.42                       | 6.22  |                                |
| Critical Hdwy Stg 1        | -         | -                      | -      | -    | 5.42                       | -     |                                |
| Critical Hdwy Stg 2        | -         | -                      | -      | -    | 5.42                       | -     |                                |
| Follow-up Hdwy             | -         | -                      | 2.218  | -    | 3.518                      | 3.318 |                                |
| Pot Cap-1 Maneuver         | -         | 0                      | 934    | -    | ~ 55                       | 467   |                                |
| Stage 1                    | -         | 0                      | -      | -    | 518                        | -     |                                |
| Stage 2                    | -         | 0                      | -      | -    | ~ 211                      | -     |                                |
| Platoon blocked, %         | -         |                        |        | -    |                            |       |                                |
| Mov Cap-1 Maneuver         | -         | -                      | 934    | -    | ~ 49                       | 467   |                                |
| Mov Cap-2 Maneuver         | -         | -                      | -      | -    | ~ 49                       | -     |                                |
| Stage 1                    | -         | -                      | -      | -    | 518                        | -     |                                |
| Stage 2                    | -         | -                      | -      | -    | ~ 187                      | -     |                                |
|                            |           |                        |        |      |                            |       |                                |
|                            |           |                        |        |      |                            |       |                                |
| Approach                   | EB        |                        | WB     |      | NB                         |       |                                |
| HCM Control Delay, s       | 0         |                        | 0.7    |      | \$ 1604.9                  |       |                                |
| HCM LOS                    |           |                        |        |      | F                          |       |                                |
|                            |           |                        |        |      |                            |       |                                |
|                            |           |                        |        |      |                            |       |                                |
| Minor Lane/Major Mvmt      | NBLn1     |                        | NBLn2  |      | EBT                        | WBL   | WBT                            |
| Capacity (veh/h)           | 49        |                        | 467    |      | -                          | 934   | -                              |
| HCM Lane V/C Ratio         | 7.298     |                        | 0.675  |      | -                          | 0.114 | -                              |
| HCM Control Delay (s)      | \$ 2995.4 |                        | 27.3   |      | -                          | 9.3   | -                              |
| HCM Lane LOS               | F         |                        | D      |      | -                          | A     | -                              |
| HCM 95th %tile Q(veh)      | 41.8      |                        | 4.9    |      | -                          | 0.4   | -                              |
| Notes                      |           |                        |        |      |                            |       |                                |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |        |      | +: Computation Not Defined |       | *: All major volume in platoon |

| Intersection             |                                                                                   |        |       |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0.8                                                                               |        |       |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR    | WBL   | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |        |       |  |  |       |
| Traffic Vol, veh/h       | 1375                                                                              | 17     | 0     | 851                                                                               | 10                                                                                | 0     |
| Future Vol, veh/h        | 1375                                                                              | 17     | 0     | 851                                                                               | 10                                                                                | 0     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0      | 0     | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free   | Free  | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None   | -     | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -      | -     | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -      | -     | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -      | -     | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 90                                                                                | 90     | 90    | 90                                                                                | 90                                                                                | 90    |
| Heavy Vehicles, %        | 1                                                                                 | 8      | 2     | 1                                                                                 | 14                                                                                | 2     |
| Mvmt Flow                | 1528                                                                              | 19     | 0     | 946                                                                               | 11                                                                                | 0     |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            | Major2 |       | Minor1                                                                            |                                                                                   |       |
| Conflicting Flow All     | 0                                                                                 | 0      | 1547  | 0                                                                                 | 2484                                                                              | 1538  |
| Stage 1                  | -                                                                                 | -      | -     | -                                                                                 | 1538                                                                              | -     |
| Stage 2                  | -                                                                                 | -      | -     | -                                                                                 | 946                                                                               | -     |
| Critical Hdwy            | -                                                                                 | -      | 4.12  | -                                                                                 | 6.54                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -      | -     | -                                                                                 | 5.54                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -      | -     | -                                                                                 | 5.54                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -      | 2.218 | -                                                                                 | 3.626                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -      | 429   | -                                                                                 | 30                                                                                | 142   |
| Stage 1                  | -                                                                                 | -      | -     | -                                                                                 | 183                                                                               | -     |
| Stage 2                  | -                                                                                 | -      | -     | -                                                                                 | 359                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -      |       | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -      | 429   | -                                                                                 | 30                                                                                | 142   |
| Mov Cap-2 Maneuver       | -                                                                                 | -      | -     | -                                                                                 | 30                                                                                | -     |
| Stage 1                  | -                                                                                 | -      | -     | -                                                                                 | 183                                                                               | -     |
| Stage 2                  | -                                                                                 | -      | -     | -                                                                                 | 359                                                                               | -     |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                | WB     |       | NB                                                                                |                                                                                   |       |
| HCM Control Delay, s     | 0                                                                                 | 0      |       | 183.5                                                                             |                                                                                   |       |
| HCM LOS                  | F                                                                                 |        |       |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT    | EBR   | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 30                                                                                | -      | -     | 429                                                                               | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.37                                                                              | -      | -     | -                                                                                 | -                                                                                 |       |
| HCM Control Delay (s)    | 183.5                                                                             | -      | -     | 0                                                                                 | -                                                                                 |       |
| HCM Lane LOS             | F                                                                                 | -      | -     | A                                                                                 | -                                                                                 |       |
| HCM 95th %tile Q(veh)    | 1.2                                                                               | -      | -     | 0                                                                                 | -                                                                                 |       |

| Intersection               |          |                        |      |                            |      |                                |
|----------------------------|----------|------------------------|------|----------------------------|------|--------------------------------|
| Int Delay, s/veh           | 28.8     |                        |      |                            |      |                                |
| Movement                   | EBT      | EBR                    | WBL  | WBT                        | NBL  | NBR                            |
| Lane Configurations        | ↑        | ↗                      | ↖    | ↑                          | ↘    |                                |
| Traffic Vol, veh/h         | 1488     | 30                     | 41   | 719                        | 36   | 76                             |
| Future Vol, veh/h          | 1488     | 30                     | 41   | 719                        | 36   | 76                             |
| Conflicting Peds, #/hr     | 0        | 0                      | 0    | 0                          | 0    | 0                              |
| Sign Control               | Free     | Free                   | Free | Free                       | Stop | Stop                           |
| RT Channelized             | -        | None                   | -    | None                       | -    | None                           |
| Storage Length             | -        | 200                    | 150  | -                          | 0    | -                              |
| Veh in Median Storage, #   | 0        | -                      | -    | 0                          | 0    | -                              |
| Grade, %                   | 0        | -                      | -    | 0                          | 0    | -                              |
| Peak Hour Factor           | 92       | 92                     | 92   | 92                         | 92   | 92                             |
| Heavy Vehicles, %          | 9        | 0                      | 0    | 2                          | 0    | 0                              |
| Mvmt Flow                  | 1617     | 33                     | 45   | 782                        | 39   | 83                             |
|                            |          |                        |      |                            |      |                                |
| Major/Minor                | Major1   | Major2                 |      | Minor1                     |      |                                |
| Conflicting Flow All       | 0        | 0                      | 1650 | 0                          | 2489 | 1617                           |
| Stage 1                    | -        | -                      | -    | -                          | 1617 | -                              |
| Stage 2                    | -        | -                      | -    | -                          | 872  | -                              |
| Critical Hdwy              | -        | -                      | 4.1  | -                          | 6.4  | 6.2                            |
| Critical Hdwy Stg 1        | -        | -                      | -    | -                          | 5.4  | -                              |
| Critical Hdwy Stg 2        | -        | -                      | -    | -                          | 5.4  | -                              |
| Follow-up Hdwy             | -        | -                      | 2.2  | -                          | 3.5  | 3.3                            |
| Pot Cap-1 Maneuver         | -        | -                      | 397  | -                          | ~ 33 | 129                            |
| Stage 1                    | -        | -                      | -    | -                          | 180  | -                              |
| Stage 2                    | -        | -                      | -    | -                          | 412  | -                              |
| Platoon blocked, %         | -        | -                      | -    | -                          | -    | -                              |
| Mov Cap-1 Maneuver         | -        | -                      | 397  | -                          | ~ 29 | 129                            |
| Mov Cap-2 Maneuver         | -        | -                      | -    | -                          | ~ 29 | -                              |
| Stage 1                    | -        | -                      | -    | -                          | 180  | -                              |
| Stage 2                    | -        | -                      | -    | -                          | 365  | -                              |
|                            |          |                        |      |                            |      |                                |
|                            |          |                        |      |                            |      |                                |
| Approach                   | EB       | WB                     |      | NB                         |      |                                |
| HCM Control Delay, s       | 0        | 0.8                    |      | \$ 609.3                   |      |                                |
| HCM LOS                    | F        |                        |      |                            |      |                                |
|                            |          |                        |      |                            |      |                                |
|                            |          |                        |      |                            |      |                                |
| Minor Lane/Major Mvmt      | NBLn1    | EBT                    | EBR  | WBL                        | WBT  |                                |
| Capacity (veh/h)           | 61       | -                      | -    | 397                        | -    |                                |
| HCM Lane V/C Ratio         | 1.996    | -                      | -    | 0.112                      | -    |                                |
| HCM Control Delay (s)      | \$ 609.3 | -                      | -    | 15.2                       | -    |                                |
| HCM Lane LOS               | F        | -                      | -    | C                          | -    |                                |
| HCM 95th %tile Q(veh)      | 11.5     | -                      | -    | 0.4                        | -    |                                |
| Notes                      |          |                        |      |                            |      |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |      | +: Computation Not Defined |      | *: All major volume in platoon |

HCM 6th TWSC  
4: Driveway #1 & Old Cornelia Highway

2035 - Turn Lane Improvements  
PM Peak Hour

| Intersection               |          |                        |        |                            |       |                                |
|----------------------------|----------|------------------------|--------|----------------------------|-------|--------------------------------|
| Int Delay, s/veh           | 978.3    |                        |        |                            |       |                                |
| Movement                   | EBT      | EBR                    | WBL    | WBT                        | NBL   | NBR                            |
| Lane Configurations        | ↑        | ↗                      | ↘      | ↑                          | ↘     | ↗                              |
| Traffic Vol, veh/h         | 1201     | 363                    | 320    | 541                        | 218   | 192                            |
| Future Vol, veh/h          | 1201     | 363                    | 320    | 541                        | 218   | 192                            |
| Conflicting Peds, #/hr     | 0        | 0                      | 0      | 0                          | 0     | 0                              |
| Sign Control               | Free     | Free                   | Free   | Free                       | Stop  | Stop                           |
| RT Channelized             | -        | Free                   | -      | None                       | -     | Yield                          |
| Storage Length             | -        | 100                    | 50     | -                          | 0     | 300                            |
| Veh in Median Storage, #   | 0        | -                      | -      | 0                          | 0     | -                              |
| Grade, %                   | 0        | -                      | -      | 0                          | 0     | -                              |
| Peak Hour Factor           | 92       | 92                     | 92     | 92                         | 92    | 92                             |
| Heavy Vehicles, %          | 2        | 2                      | 2      | 2                          | 2     | 2                              |
| Mvmt Flow                  | 1305     | 395                    | 348    | 588                        | 237   | 209                            |
|                            |          |                        |        |                            |       |                                |
| Major/Minor                | Major1   | Major2                 | Minor1 |                            |       |                                |
| Conflicting Flow All       | 0        | -                      | 1305   | 0                          | 2589  | 1305                           |
| Stage 1                    | -        | -                      | -      | -                          | 1305  | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 1284  | -                              |
| Critical Hdwy              | -        | -                      | 4.12   | -                          | 6.42  | 6.22                           |
| Critical Hdwy Stg 1        | -        | -                      | -      | -                          | 5.42  | -                              |
| Critical Hdwy Stg 2        | -        | -                      | -      | -                          | 5.42  | -                              |
| Follow-up Hdwy             | -        | -                      | 2.218  | -                          | 3.518 | 3.318                          |
| Pot Cap-1 Maneuver         | -        | 0                      | 530    | -                          | ~ 28  | ~ 196                          |
| Stage 1                    | -        | 0                      | -      | -                          | 254   | -                              |
| Stage 2                    | -        | 0                      | -      | -                          | 260   | -                              |
| Platoon blocked, %         | -        |                        |        | -                          |       |                                |
| Mov Cap-1 Maneuver         | -        | -                      | 530    | -                          | ~ 10  | ~ 196                          |
| Mov Cap-2 Maneuver         | -        | -                      | -      | -                          | ~ 10  | -                              |
| Stage 1                    | -        | -                      | -      | -                          | 254   | -                              |
| Stage 2                    | -        | -                      | -      | -                          | ~ 89  | -                              |
|                            |          |                        |        |                            |       |                                |
|                            |          |                        |        |                            |       |                                |
| Approach                   | EB       | WB                     |        | NB                         |       |                                |
| HCM Control Delay, s       | 0        | 8.9                    |        | \$ 5879.6                  |       |                                |
| HCM LOS                    | F        |                        |        |                            |       |                                |
|                            |          |                        |        |                            |       |                                |
|                            |          |                        |        |                            |       |                                |
| Minor Lane/Major Mvmt      | NBLn1    | NBLn2                  | EBT    | WBL                        | WBT   |                                |
| Capacity (veh/h)           | 10       | 196                    | -      | 530                        | -     |                                |
| HCM Lane V/C Ratio         | 23.696   | 1.065                  | -      | 0.656                      | -     |                                |
| HCM Control Delay (s)      | \$ 10941 | 132.9                  | -      | 23.8                       | -     |                                |
| HCM Lane LOS               | F        | F                      | -      | C                          | -     |                                |
| HCM 95th %tile Q(veh)      | 31.2     | 9.7                    | -      | 4.7                        | -     |                                |
| Notes                      |          |                        |        |                            |       |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |        | +: Computation Not Defined |       | *: All major volume in platoon |

**WITH WIDENING**



| Intersection             |        |        |        |       |      |      |
|--------------------------|--------|--------|--------|-------|------|------|
| Int Delay, s/veh         | 0.3    |        |        |       |      |      |
| Movement                 | EBT    | EBR    | WBL    | WBT   | NBL  | NBR  |
| Lane Configurations      | ↑↑     |        |        | ↑↑    | ↑    |      |
| Traffic Vol, veh/h       | 693    | 11     | 1      | 958   | 15   | 3    |
| Future Vol, veh/h        | 693    | 11     | 1      | 958   | 15   | 3    |
| Conflicting Peds, #/hr   | 0      | 0      | 0      | 0     | 0    | 0    |
| Sign Control             | Free   | Free   | Free   | Free  | Stop | Stop |
| RT Channelized           | -      | None   | -      | None  | -    | None |
| Storage Length           | -      | -      | -      | -     | 0    | -    |
| Veh in Median Storage, # | 0      | -      | -      | 0     | 0    | -    |
| Grade, %                 | 0      | -      | -      | 0     | 0    | -    |
| Peak Hour Factor         | 92     | 92     | 92     | 92    | 92   | 92   |
| Heavy Vehicles, %        | 7      | 11     | 0      | 2     | 0    | 33   |
| Mvmt Flow                | 753    | 12     | 1      | 1041  | 16   | 3    |
|                          |        |        |        |       |      |      |
| Major/Minor              | Major1 | Major2 | Minor1 |       |      |      |
| Conflicting Flow All     | 0      | 0      | 765    | 0     | 1282 | 383  |
| Stage 1                  | -      | -      | -      | -     | 759  | -    |
| Stage 2                  | -      | -      | -      | -     | 523  | -    |
| Critical Hdwy            | -      | -      | 4.1    | -     | 6.8  | 7.56 |
| Critical Hdwy Stg 1      | -      | -      | -      | -     | 5.8  | -    |
| Critical Hdwy Stg 2      | -      | -      | -      | -     | 5.8  | -    |
| Follow-up Hdwy           | -      | -      | 2.2    | -     | 3.5  | 3.63 |
| Pot Cap-1 Maneuver       | -      | -      | 857    | -     | 160  | 535  |
| Stage 1                  | -      | -      | -      | -     | 428  | -    |
| Stage 2                  | -      | -      | -      | -     | 565  | -    |
| Platoon blocked, %       | -      | -      |        | -     |      |      |
| Mov Cap-1 Maneuver       | -      | -      | 857    | -     | 160  | 535  |
| Mov Cap-2 Maneuver       | -      | -      | -      | -     | 160  | -    |
| Stage 1                  | -      | -      | -      | -     | 428  | -    |
| Stage 2                  | -      | -      | -      | -     | 563  | -    |
|                          |        |        |        |       |      |      |
|                          |        |        |        |       |      |      |
| Approach                 | EB     | WB     |        | NB    |      |      |
| HCM Control Delay, s     | 0      | 0      |        | 27.3  |      |      |
| HCM LOS                  | D      |        |        |       |      |      |
|                          |        |        |        |       |      |      |
|                          |        |        |        |       |      |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT    | EBR    | WBL   | WBT  |      |
| Capacity (veh/h)         | 181    | -      | -      | 857   | -    |      |
| HCM Lane V/C Ratio       | 0.108  | -      | -      | 0.001 | -    |      |
| HCM Control Delay (s)    | 27.3   | -      | -      | 9.2   | 0    |      |
| HCM Lane LOS             | D      | -      | -      | A     | A    |      |
| HCM 95th %tile Q(veh)    | 0.4    | -      | -      | 0     | -    |      |

| Intersection               |        |                        |        |                            |        |                                |
|----------------------------|--------|------------------------|--------|----------------------------|--------|--------------------------------|
| Int Delay, s/veh           | 16.8   |                        |        |                            |        |                                |
| Movement                   | EBT    | EBR                    | WBL    | WBT                        | NBL    | NBR                            |
| Lane Configurations        | ↑↑     | ↗                      | ↖      | ↑↑                         | ↘      |                                |
| Traffic Vol, veh/h         | 516    | 77                     | 82     | 1039                       | 90     | 72                             |
| Future Vol, veh/h          | 516    | 77                     | 82     | 1039                       | 90     | 72                             |
| Conflicting Peds, #/hr     | 0      | 0                      | 0      | 0                          | 0      | 0                              |
| Sign Control               | Free   | Free                   | Free   | Free                       | Stop   | Stop                           |
| RT Channelized             | -      | None                   | -      | None                       | -      | None                           |
| Storage Length             | -      | 200                    | 150    | -                          | 0      | -                              |
| Veh in Median Storage, #   | 0      | -                      | -      | 0                          | 0      | -                              |
| Grade, %                   | 0      | -                      | -      | 0                          | 0      | -                              |
| Peak Hour Factor           | 83     | 83                     | 83     | 83                         | 83     | 83                             |
| Heavy Vehicles, %          | 4      | 3                      | 3      | 2                          | 9      | 10                             |
| Mvmt Flow                  | 622    | 93                     | 99     | 1252                       | 108    | 87                             |
|                            |        |                        |        |                            |        |                                |
| Major/Minor                | Major1 |                        | Major2 |                            | Minor1 |                                |
| Conflicting Flow All       | 0      | 0                      | 715    | 0                          | 1446   | 311                            |
| Stage 1                    | -      | -                      | -      | -                          | 622    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 824    | -                              |
| Critical Hdwy              | -      | -                      | 4.16   | -                          | 6.98   | 7.1                            |
| Critical Hdwy Stg 1        | -      | -                      | -      | -                          | 5.98   | -                              |
| Critical Hdwy Stg 2        | -      | -                      | -      | -                          | 5.98   | -                              |
| Follow-up Hdwy             | -      | -                      | 2.23   | -                          | 3.59   | 3.4                            |
| Pot Cap-1 Maneuver         | -      | -                      | 875    | -                          | 115    | 662                            |
| Stage 1                    | -      | -                      | -      | -                          | 479    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 374    | -                              |
| Platoon blocked, %         | -      | -                      |        | -                          |        |                                |
| Mov Cap-1 Maneuver         | -      | -                      | 875    | - ~ 102                    | 662    |                                |
| Mov Cap-2 Maneuver         | -      | -                      | -      | - ~ 102                    | -      |                                |
| Stage 1                    | -      | -                      | -      | -                          | 479    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 332    | -                              |
|                            |        |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Approach                   | EB     |                        | WB     |                            | NB     |                                |
| HCM Control Delay, s       | 0      |                        | 0.7    |                            | 189.3  |                                |
| HCM LOS                    |        |                        |        |                            | F      |                                |
|                            |        |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Minor Lane/Major Mvmt      | NBLn1  | EBT                    | EBR    | WBL                        | WBT    |                                |
| Capacity (veh/h)           | 163    | -                      | -      | 875                        | -      |                                |
| HCM Lane V/C Ratio         | 1.197  | -                      | -      | 0.113                      | -      |                                |
| HCM Control Delay (s)      | 189.3  | -                      | -      | 9.6                        | -      |                                |
| HCM Lane LOS               | F      | -                      | -      | A                          | -      |                                |
| HCM 95th %tile Q(veh)      | 10.8   | -                      | -      | 0.4                        | -      |                                |
| Notes                      |        |                        |        |                            |        |                                |
| ~: Volume exceeds capacity |        | \$: Delay exceeds 300s |        | +: Computation Not Defined |        | *: All major volume in platoon |

| Intersection               |        |                        |        |                            |        |                                |
|----------------------------|--------|------------------------|--------|----------------------------|--------|--------------------------------|
| Int Delay, s/veh           | 29     |                        |        |                            |        |                                |
| Movement                   | EBT    | EBR                    | WBL    | WBT                        | NBL    | NBR                            |
| Lane Configurations        | ↑↑     | ↑                      | ↑      | ↑↑                         | ↑      | ↑                              |
| Traffic Vol, veh/h         | 518    | 70                     | 62     | 911                        | 210    | 185                            |
| Future Vol, veh/h          | 518    | 70                     | 62     | 911                        | 210    | 185                            |
| Conflicting Peds, #/hr     | 0      | 0                      | 0      | 0                          | 0      | 0                              |
| Sign Control               | Free   | Free                   | Free   | Free                       | Stop   | Stop                           |
| RT Channelized             | -      | Free                   | -      | None                       | -      | Yield                          |
| Storage Length             | -      | 100                    | 50     | -                          | 0      | 300                            |
| Veh in Median Storage, #   | 0      | -                      | -      | 0                          | 0      | -                              |
| Grade, %                   | 0      | -                      | -      | 0                          | 0      | -                              |
| Peak Hour Factor           | 92     | 92                     | 92     | 92                         | 92     | 92                             |
| Heavy Vehicles, %          | 2      | 2                      | 2      | 2                          | 2      | 2                              |
| Mvmt Flow                  | 563    | 76                     | 67     | 990                        | 228    | 201                            |
|                            |        |                        |        |                            |        |                                |
| Major/Minor                | Major1 |                        | Major2 |                            | Minor1 |                                |
| Conflicting Flow All       | 0      | -                      | 563    | 0                          | 1192   | 282                            |
| Stage 1                    | -      | -                      | -      | -                          | 563    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 629    | -                              |
| Critical Hdwy              | -      | -                      | 4.14   | -                          | 6.84   | 6.94                           |
| Critical Hdwy Stg 1        | -      | -                      | -      | -                          | 5.84   | -                              |
| Critical Hdwy Stg 2        | -      | -                      | -      | -                          | 5.84   | -                              |
| Follow-up Hdwy             | -      | -                      | 2.22   | -                          | 3.52   | 3.32                           |
| Pot Cap-1 Maneuver         | -      | 0                      | 1005   | -                          | ~ 180  | 715                            |
| Stage 1                    | -      | 0                      | -      | -                          | 534    | -                              |
| Stage 2                    | -      | 0                      | -      | -                          | 494    | -                              |
| Platoon blocked, %         | -      |                        |        | -                          |        |                                |
| Mov Cap-1 Maneuver         | -      | -                      | 1005   | -                          | ~ 168  | 715                            |
| Mov Cap-2 Maneuver         | -      | -                      | -      | -                          | ~ 168  | -                              |
| Stage 1                    | -      | -                      | -      | -                          | 534    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 461    | -                              |
|                            |        |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Approach                   | EB     |                        | WB     |                            | NB     |                                |
| HCM Control Delay, s       | 0      |                        | 0.6    |                            | 137    |                                |
| HCM LOS                    |        |                        |        |                            | F      |                                |
|                            |        |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Minor Lane/Major Mvmt      | NBLn1  |                        | NBLn2  | EBT                        | WBL    | WBT                            |
| Capacity (veh/h)           | 168    |                        | 715    | -                          | 1005   | -                              |
| HCM Lane V/C Ratio         | 1.359  |                        | 0.281  | -                          | 0.067  | -                              |
| HCM Control Delay (s)      | 247.2  |                        | 12     | -                          | 8.8    | -                              |
| HCM Lane LOS               | F      |                        | B      | -                          | A      | -                              |
| HCM 95th %tile Q(veh)      | 13.8   |                        | 1.2    | -                          | 0.2    | -                              |
| Notes                      |        |                        |        |                            |        |                                |
| ~: Volume exceeds capacity |        | \$: Delay exceeds 300s |        | +: Computation Not Defined |        | *: All major volume in platoon |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.2  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑    |      |
| Traffic Vol, veh/h       | 1144 | 15   | 0    | 666  | 8    | 0    |
| Future Vol, veh/h        | 1144 | 15   | 0    | 666  | 8    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 90   | 90   | 90   | 90   | 90   | 90   |
| Heavy Vehicles, %        | 1    | 8    | 2    | 1    | 14   | 2    |
| Mvmt Flow                | 1271 | 17   | 0    | 740  | 9    | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1288   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.14   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.22   |
| Pot Cap-1 Maneuver   | -      | -      | 534    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 534    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 56.3 |
| HCM LOS              |    |    | F    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 79    | -   | -   | 534 | -   |
| HCM Lane V/C Ratio    | 0.113 | -   | -   | -   | -   |
| HCM Control Delay (s) | 56.3  | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.4   | -   | -   | 0   | -   |

HCM 6th TWSC  
2: White Sulphur Elementary School & Old Cornelia Highway

2025 - Turn Lane Improvements w Widening

PM Peak Hour

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 2.4    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     | ↗    | ↘      | ↑↑    | ↘↗     |      |
| Traffic Vol, veh/h       | 1219   | 25   | 27     | 580   | 31     | 52   |
| Future Vol, veh/h        | 1219   | 25   | 27     | 580   | 31     | 52   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1325   | 27   | 29     | 630   | 34     | 57   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1352   | 0     | 1698   | 663  |
| Stage 1                  | -      | -    | -      | -     | 1325   | -    |
| Stage 2                  | -      | -    | -      | -     | 373    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 6.9  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 516    | -     | 85     | 409  |
| Stage 1                  | -      | -    | -      | -     | 216    | -    |
| Stage 2                  | -      | -    | -      | -     | 672    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 516    | -     | 80     | 409  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 80     | -    |
| Stage 1                  | -      | -    | -      | -     | 216    | -    |
| Stage 2                  | -      | -    | -      | -     | 634    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.6    |       | 52.6   |      |
| HCM LOS                  | F      |      |        |       |        |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 161    | -    | -      | 516   | -      |      |
| HCM Lane V/C Ratio       | 0.56   | -    | -      | 0.057 | -      |      |
| HCM Control Delay (s)    | 52.6   | -    | -      | 12.4  | -      |      |
| HCM Lane LOS             | F      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 2.9    | -    | -      | 0.2   | -      |      |



| Intersection               |           |                        |      |                            |      |                                |
|----------------------------|-----------|------------------------|------|----------------------------|------|--------------------------------|
| Int Delay, s/veh           | 98.9      |                        |      |                            |      |                                |
| Movement                   | EBT       | EBR                    | WBL  | WBT                        | NBL  | NBR                            |
| Lane Configurations        | ↑↑        | ↑                      | ↑    | ↑↑                         | ↑    | ↑                              |
| Traffic Vol, veh/h         | 1035      | 236                    | 208  | 466                        | 141  | 124                            |
| Future Vol, veh/h          | 1035      | 236                    | 208  | 466                        | 141  | 124                            |
| Conflicting Peds, #/hr     | 0         | 0                      | 0    | 0                          | 0    | 0                              |
| Sign Control               | Free      | Free                   | Free | Free                       | Stop | Stop                           |
| RT Channelized             | -         | Free                   | -    | None                       | -    | Yield                          |
| Storage Length             | -         | 100                    | 50   | -                          | 0    | 300                            |
| Veh in Median Storage, #   | 0         | -                      | -    | 0                          | 0    | -                              |
| Grade, %                   | 0         | -                      | -    | 0                          | 0    | -                              |
| Peak Hour Factor           | 92        | 92                     | 92   | 92                         | 92   | 92                             |
| Heavy Vehicles, %          | 2         | 2                      | 2    | 2                          | 2    | 2                              |
| Mvmt Flow                  | 1125      | 257                    | 226  | 507                        | 153  | 135                            |
|                            |           |                        |      |                            |      |                                |
| Major/Minor                | Major1    | Major2                 |      | Minor1                     |      |                                |
| Conflicting Flow All       | 0         | -                      | 1125 | 0                          | 1831 | 563                            |
| Stage 1                    | -         | -                      | -    | -                          | 1125 | -                              |
| Stage 2                    | -         | -                      | -    | -                          | 706  | -                              |
| Critical Hdwy              | -         | -                      | 4.14 | -                          | 6.84 | 6.94                           |
| Critical Hdwy Stg 1        | -         | -                      | -    | -                          | 5.84 | -                              |
| Critical Hdwy Stg 2        | -         | -                      | -    | -                          | 5.84 | -                              |
| Follow-up Hdwy             | -         | -                      | 2.22 | -                          | 3.52 | 3.32                           |
| Pot Cap-1 Maneuver         | -         | 0                      | 617  | -                          | ~ 68 | 470                            |
| Stage 1                    | -         | 0                      | -    | -                          | 272  | -                              |
| Stage 2                    | -         | 0                      | -    | -                          | 450  | -                              |
| Platoon blocked, %         | -         |                        |      | -                          |      |                                |
| Mov Cap-1 Maneuver         | -         | -                      | 617  | -                          | ~ 43 | 470                            |
| Mov Cap-2 Maneuver         | -         | -                      | -    | -                          | ~ 43 | -                              |
| Stage 1                    | -         | -                      | -    | -                          | 272  | -                              |
| Stage 2                    | -         | -                      | -    | -                          | 285  | -                              |
|                            |           |                        |      |                            |      |                                |
|                            |           |                        |      |                            |      |                                |
| Approach                   | EB        | WB                     |      | NB                         |      |                                |
| HCM Control Delay, s       | 0         | 4.4                    |      | \$ 725.2                   |      |                                |
| HCM LOS                    | F         |                        |      |                            |      |                                |
|                            |           |                        |      |                            |      |                                |
|                            |           |                        |      |                            |      |                                |
| Minor Lane/Major Mvmt      | NBLn1     | NBLn2                  | EBT  | WBL                        | WBT  |                                |
| Capacity (veh/h)           | 43        | 470                    | -    | 617                        | -    |                                |
| HCM Lane V/C Ratio         | 3.564     | 0.287                  | -    | 0.366                      | -    |                                |
| HCM Control Delay (s)      | \$ 1349.1 | 15.7                   | -    | 14.2                       | -    |                                |
| HCM Lane LOS               | F         | C                      | -    | B                          | -    |                                |
| HCM 95th %tile Q(veh)      | 17.1      | 1.2                    | -    | 1.7                        | -    |                                |
| Notes                      |           |                        |      |                            |      |                                |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |      | +: Computation Not Defined |      | *: All major volume in platoon |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 0.3    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     |      |        | ↑↑    | ↑      |      |
| Traffic Vol, veh/h       | 779    | 11   | 1      | 1043  | 16     | 3    |
| Future Vol, veh/h        | 779    | 11   | 1      | 1043  | 16     | 3    |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | -    | -      | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 7      | 11   | 0      | 2     | 0      | 33   |
| Mvmt Flow                | 847    | 12   | 1      | 1134  | 17     | 3    |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 859    | 0     | 1422   | 430  |
| Stage 1                  | -      | -    | -      | -     | 853    | -    |
| Stage 2                  | -      | -    | -      | -     | 569    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 7.56 |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.63 |
| Pot Cap-1 Maneuver       | -      | -    | 791    | -     | 129    | 495  |
| Stage 1                  | -      | -    | -      | -     | 383    | -    |
| Stage 2                  | -      | -    | -      | -     | 535    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 791    | -     | 129    | 495  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 129    | -    |
| Stage 1                  | -      | -    | -      | -     | 383    | -    |
| Stage 2                  | -      | -    | -      | -     | 533    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0      |       | 33.7   |      |
| HCM LOS                  |        |      |        |       | D      |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 146    | -    | -      | 791   | -      |      |
| HCM Lane V/C Ratio       | 0.141  | -    | -      | 0.001 | -      |      |
| HCM Control Delay (s)    | 33.7   | -    | -      | 9.6   | 0      |      |
| HCM Lane LOS             | D      | -    | -      | A     | A      |      |
| HCM 95th %tile Q(veh)    | 0.5    | -    | -      | 0     | -      |      |

HCM 6th TWSC  
2: White Sulphur Elementary School & Old Cornelia Highway

2030 - Turn Lane Improvements w Widening

AM Peak Hour

| Intersection               |          |                        |        |                            |          |                                |
|----------------------------|----------|------------------------|--------|----------------------------|----------|--------------------------------|
| Int Delay, s/veh           | 33.4     |                        |        |                            |          |                                |
| Movement                   | EBT      | EBR                    | WBL    | WBT                        | NBL      | NBR                            |
| Lane Configurations        | ↑↑       | ↑                      | ↓      | ↑↑                         | ↓        |                                |
| Traffic Vol, veh/h         | 567      | 83                     | 94     | 1150                       | 97       | 80                             |
| Future Vol, veh/h          | 567      | 83                     | 94     | 1150                       | 97       | 80                             |
| Conflicting Peds, #/hr     | 0        | 0                      | 0      | 0                          | 0        | 0                              |
| Sign Control               | Free     | Free                   | Free   | Free                       | Stop     | Stop                           |
| RT Channelized             | -        | None                   | -      | None                       | -        | None                           |
| Storage Length             | -        | 200                    | 150    | -                          | 0        | -                              |
| Veh in Median Storage, #   | 0        | -                      | -      | 0                          | 0        | -                              |
| Grade, %                   | 0        | -                      | -      | 0                          | 0        | -                              |
| Peak Hour Factor           | 83       | 83                     | 83     | 83                         | 83       | 83                             |
| Heavy Vehicles, %          | 4        | 3                      | 3      | 2                          | 9        | 10                             |
| Mvmt Flow                  | 683      | 100                    | 113    | 1386                       | 117      | 96                             |
|                            |          |                        |        |                            |          |                                |
| Major/Minor                | Major1   |                        | Major2 |                            | Minor1   |                                |
| Conflicting Flow All       | 0        | 0                      | 783    | 0                          | 1602     | 342                            |
| Stage 1                    | -        | -                      | -      | -                          | 683      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 919      | -                              |
| Critical Hdwy              | -        | -                      | 4.16   | -                          | 6.98     | 7.1                            |
| Critical Hdwy Stg 1        | -        | -                      | -      | -                          | 5.98     | -                              |
| Critical Hdwy Stg 2        | -        | -                      | -      | -                          | 5.98     | -                              |
| Follow-up Hdwy             | -        | -                      | 2.23   | -                          | 3.59     | 3.4                            |
| Pot Cap-1 Maneuver         | -        | -                      | 824    | -                          | ~ 90     | 631                            |
| Stage 1                    | -        | -                      | -      | -                          | 445      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 333      | -                              |
| Platoon blocked, %         | -        | -                      | -      | -                          | -        | -                              |
| Mov Cap-1 Maneuver         | -        | -                      | 824    | -                          | ~ 78     | 631                            |
| Mov Cap-2 Maneuver         | -        | -                      | -      | -                          | ~ 78     | -                              |
| Stage 1                    | -        | -                      | -      | -                          | 445      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 287      | -                              |
|                            |          |                        |        |                            |          |                                |
| Approach                   | EB       |                        | WB     |                            | NB       |                                |
| HCM Control Delay, s       | 0        |                        | 0.8    |                            | \$ 385.7 |                                |
| HCM LOS                    | F        |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Minor Lane/Major Mvmt      | NBLn1    | EBT                    | EBR    | WBL                        | WBT      |                                |
| Capacity (veh/h)           | 129      | -                      | -      | 824                        | -        |                                |
| HCM Lane V/C Ratio         | 1.653    | -                      | -      | 0.137                      | -        |                                |
| HCM Control Delay (s)      | \$ 385.7 | -                      | -      | 10.1                       | -        |                                |
| HCM Lane LOS               | F        | -                      | -      | B                          | -        |                                |
| HCM 95th %tile Q(veh)      | 15.6     | -                      | -      | 0.5                        | -        |                                |
| Notes                      |          |                        |        |                            |          |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |        | +: Computation Not Defined |          | *: All major volume in platoon |

| Intersection               |          |                        |        |                            |          |                                |
|----------------------------|----------|------------------------|--------|----------------------------|----------|--------------------------------|
| Int Delay, s/veh           | 73.7     |                        |        |                            |          |                                |
| Movement                   | EBT      | EBR                    | WBL    | WBT                        | NBL      | NBR                            |
| Lane Configurations        | ↑↑       | ↑                      | ↑      | ↑↑                         | ↑        | ↑                              |
| Traffic Vol, veh/h         | 557      | 90                     | 80     | 979                        | 265      | 233                            |
| Future Vol, veh/h          | 557      | 90                     | 80     | 979                        | 265      | 233                            |
| Conflicting Peds, #/hr     | 0        | 0                      | 0      | 0                          | 0        | 0                              |
| Sign Control               | Free     | Free                   | Free   | Free                       | Stop     | Stop                           |
| RT Channelized             | -        | Free                   | -      | None                       | -        | Yield                          |
| Storage Length             | -        | 100                    | 50     | -                          | 0        | 300                            |
| Veh in Median Storage, #   | 0        | -                      | -      | 0                          | 0        | -                              |
| Grade, %                   | 0        | -                      | -      | 0                          | 0        | -                              |
| Peak Hour Factor           | 92       | 92                     | 92     | 92                         | 92       | 92                             |
| Heavy Vehicles, %          | 2        | 2                      | 2      | 2                          | 2        | 2                              |
| Mvmt Flow                  | 605      | 98                     | 87     | 1064                       | 288      | 253                            |
|                            |          |                        |        |                            |          |                                |
| Major/Minor                | Major1   |                        | Major2 |                            | Minor1   |                                |
| Conflicting Flow All       | 0        | -                      | 605    | 0                          | 1311     | 303                            |
| Stage 1                    | -        | -                      | -      | -                          | 605      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 706      | -                              |
| Critical Hdwy              | -        | -                      | 4.14   | -                          | 6.84     | 6.94                           |
| Critical Hdwy Stg 1        | -        | -                      | -      | -                          | 5.84     | -                              |
| Critical Hdwy Stg 2        | -        | -                      | -      | -                          | 5.84     | -                              |
| Follow-up Hdwy             | -        | -                      | 2.22   | -                          | 3.52     | 3.32                           |
| Pot Cap-1 Maneuver         | -        | 0                      | 969    | -                          | ~ 150    | 693                            |
| Stage 1                    | -        | 0                      | -      | -                          | 508      | -                              |
| Stage 2                    | -        | 0                      | -      | -                          | 450      | -                              |
| Platoon blocked, %         | -        |                        |        | -                          |          |                                |
| Mov Cap-1 Maneuver         | -        | -                      | 969    | -                          | ~ 137    | 693                            |
| Mov Cap-2 Maneuver         | -        | -                      | -      | -                          | ~ 137    | -                              |
| Stage 1                    | -        | -                      | -      | -                          | 508      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 410      | -                              |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Approach                   | EB       |                        | WB     |                            | NB       |                                |
| HCM Control Delay, s       | 0        |                        | 0.7    |                            | \$ 311.2 |                                |
| HCM LOS                    |          |                        |        |                            | F        |                                |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Minor Lane/Major Mvmt      | NBLn1    |                        | NBLn2  | EBT                        | WBL      | WBT                            |
| Capacity (veh/h)           | 137      |                        | 693    | -                          | 969      | -                              |
| HCM Lane V/C Ratio         | 2.103    |                        | 0.365  | -                          | 0.09     | -                              |
| HCM Control Delay (s)      | \$ 573.3 |                        | 13.2   | -                          | 9.1      | -                              |
| HCM Lane LOS               | F        |                        | B      | -                          | A        | -                              |
| HCM 95th %tile Q(veh)      | 23.5     |                        | 1.7    | -                          | 0.3      | -                              |
| Notes                      |          |                        |        |                            |          |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |        | +: Computation Not Defined |          | *: All major volume in platoon |

| Intersection             |        |      |        |      |        |      |
|--------------------------|--------|------|--------|------|--------|------|
| Int Delay, s/veh         | 0.3    |      |        |      |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT  | NBL    | NBR  |
| Lane Configurations      | ↑↑     |      |        | ↑↑   | ↑      |      |
| Traffic Vol, veh/h       | 1251   | 16   | 0      | 745  | 9      | 0    |
| Future Vol, veh/h        | 1251   | 16   | 0      | 745  | 9      | 0    |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0    | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free | Stop   | Stop |
| RT Channelized           | -      | None | -      | None | -      | None |
| Storage Length           | -      | -    | -      | -    | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0    | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0    | 0      | -    |
| Peak Hour Factor         | 90     | 90   | 90     | 90   | 90     | 90   |
| Heavy Vehicles, %        | 1      | 8    | 2      | 1    | 14     | 2    |
| Mvmt Flow                | 1390   | 18   | 0      | 828  | 10     | 0    |
|                          |        |      |        |      |        |      |
| Major/Minor              | Major1 |      | Major2 |      | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1408   | 0    | 1813   | 704  |
| Stage 1                  | -      | -    | -      | -    | 1399   | -    |
| Stage 2                  | -      | -    | -      | -    | 414    | -    |
| Critical Hdwy            | -      | -    | 4.14   | -    | 7.08   | 6.94 |
| Critical Hdwy Stg 1      | -      | -    | -      | -    | 6.08   | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -    | 6.08   | -    |
| Follow-up Hdwy           | -      | -    | 2.22   | -    | 3.64   | 3.32 |
| Pot Cap-1 Maneuver       | -      | -    | 481    | -    | 61     | 379  |
| Stage 1                  | -      | -    | -      | -    | 174    | -    |
| Stage 2                  | -      | -    | -      | -    | 602    | -    |
| Platoon blocked, %       | -      | -    |        | -    |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 481    | -    | 61     | 379  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -    | 61     | -    |
| Stage 1                  | -      | -    | -      | -    | 174    | -    |
| Stage 2                  | -      | -    | -      | -    | 602    | -    |
|                          |        |      |        |      |        |      |
|                          |        |      |        |      |        |      |
| Approach                 | EB     |      | WB     |      | NB     |      |
| HCM Control Delay, s     | 0      |      | 0      |      | 75.3   |      |
| HCM LOS                  |        |      |        |      | F      |      |
|                          |        |      |        |      |        |      |
|                          |        |      |        |      |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL  | WBT    |      |
| Capacity (veh/h)         | 61     | -    | -      | 481  | -      |      |
| HCM Lane V/C Ratio       | 0.164  | -    | -      | -    | -      |      |
| HCM Control Delay (s)    | 75.3   | -    | -      | 0    | -      |      |
| HCM Lane LOS             | F      | -    | -      | A    | -      |      |
| HCM 95th %tile Q(veh)    | 0.5    | -    | -      | 0    | -      |      |



| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 4.3    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     | ↗    | ↖      | ↑↑    | ↘      |      |
| Traffic Vol, veh/h       | 1339   | 27   | 33     | 644   | 33     | 62   |
| Future Vol, veh/h        | 1339   | 27   | 33     | 644   | 33     | 62   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1455   | 29   | 36     | 700   | 36     | 67   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1484   | 0     | 1877   | 728  |
| Stage 1                  | -      | -    | -      | -     | 1455   | -    |
| Stage 2                  | -      | -    | -      | -     | 422    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 6.9  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 459    | -     | 65     | 370  |
| Stage 1                  | -      | -    | -      | -     | 184    | -    |
| Stage 2                  | -      | -    | -      | -     | 635    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 459    | -     | 60     | 370  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 60     | -    |
| Stage 1                  | -      | -    | -      | -     | 184    | -    |
| Stage 2                  | -      | -    | -      | -     | 585    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.7    |       | 92.8   |      |
| HCM LOS                  |        |      |        |       | F      |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 132    | -    | -      | 459   | -      |      |
| HCM Lane V/C Ratio       | 0.782  | -    | -      | 0.078 | -      |      |
| HCM Control Delay (s)    | 92.8   | -    | -      | 13.5  | -      |      |
| HCM Lane LOS             | F      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 4.7    | -    | -      | 0.3   | -      |      |

| Intersection               |           |                        |        |                            |           |                                |
|----------------------------|-----------|------------------------|--------|----------------------------|-----------|--------------------------------|
| Int Delay, s/veh           | 267.6     |                        |        |                            |           |                                |
| Movement                   | EBT       | EBR                    | WBL    | WBT                        | NBL       | NBR                            |
| Lane Configurations        | ↑↑        | ↑                      | ↑      | ↑↑                         | ↑         | ↑                              |
| Traffic Vol, veh/h         | 1113      | 288                    | 253    | 501                        | 176       | 154                            |
| Future Vol, veh/h          | 1113      | 288                    | 253    | 501                        | 176       | 154                            |
| Conflicting Peds, #/hr     | 0         | 0                      | 0      | 0                          | 0         | 0                              |
| Sign Control               | Free      | Free                   | Free   | Free                       | Stop      | Stop                           |
| RT Channelized             | -         | Free                   | -      | None                       | -         | Yield                          |
| Storage Length             | -         | 100                    | 50     | -                          | 0         | 300                            |
| Veh in Median Storage, #   | 0         | -                      | -      | 0                          | 0         | -                              |
| Grade, %                   | 0         | -                      | -      | 0                          | 0         | -                              |
| Peak Hour Factor           | 92        | 92                     | 92     | 92                         | 92        | 92                             |
| Heavy Vehicles, %          | 2         | 2                      | 2      | 2                          | 2         | 2                              |
| Mvmt Flow                  | 1210      | 313                    | 275    | 545                        | 191       | 167                            |
|                            |           |                        |        |                            |           |                                |
| Major/Minor                | Major1    |                        | Major2 |                            | Minor1    |                                |
| Conflicting Flow All       | 0         | -                      | 1210   | 0                          | 2033      | 605                            |
| Stage 1                    | -         | -                      | -      | -                          | 1210      | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 823       | -                              |
| Critical Hdwy              | -         | -                      | 4.14   | -                          | 6.84      | 6.94                           |
| Critical Hdwy Stg 1        | -         | -                      | -      | -                          | 5.84      | -                              |
| Critical Hdwy Stg 2        | -         | -                      | -      | -                          | 5.84      | -                              |
| Follow-up Hdwy             | -         | -                      | 2.22   | -                          | 3.52      | 3.32                           |
| Pot Cap-1 Maneuver         | -         | 0                      | 572    | -                          | ~ 49      | 441                            |
| Stage 1                    | -         | 0                      | -      | -                          | 245       | -                              |
| Stage 2                    | -         | 0                      | -      | -                          | 392       | -                              |
| Platoon blocked, %         | -         |                        |        | -                          |           |                                |
| Mov Cap-1 Maneuver         | -         | -                      | 572    | -                          | ~ 25      | 441                            |
| Mov Cap-2 Maneuver         | -         | -                      | -      | -                          | ~ 25      | -                              |
| Stage 1                    | -         | -                      | -      | -                          | 245       | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 203       | -                              |
|                            |           |                        |        |                            |           |                                |
|                            |           |                        |        |                            |           |                                |
| Approach                   | EB        |                        | WB     |                            | NB        |                                |
| HCM Control Delay, s       | 0         |                        | 5.7    |                            | \$ 1768.4 |                                |
| HCM LOS                    |           |                        |        |                            | F         |                                |
|                            |           |                        |        |                            |           |                                |
|                            |           |                        |        |                            |           |                                |
| Minor Lane/Major Mvmt      | NBLn1     |                        | NBLn2  | EBT                        | WBL       | WBT                            |
| Capacity (veh/h)           | 25        |                        | 441    | -                          | 572       | -                              |
| HCM Lane V/C Ratio         | 7.652     |                        | 0.38   | -                          | 0.481     | -                              |
| HCM Control Delay (s)      | \$ 3299.9 |                        | 18.1   | -                          | 17        | -                              |
| HCM Lane LOS               | F         |                        | C      | -                          | C         | -                              |
| HCM 95th %tile Q(veh)      | 23.8      |                        | 1.7    | -                          | 2.6       | -                              |
| Notes                      |           |                        |        |                            |           |                                |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |        | +: Computation Not Defined |           | *: All major volume in platoon |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 0.4    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     |      |        | ↑↑    | ↑↑     |      |
| Traffic Vol, veh/h       | 879    | 12   | 1      | 1137  | 17     | 4    |
| Future Vol, veh/h        | 879    | 12   | 1      | 1137  | 17     | 4    |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | -    | -      | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 7      | 11   | 0      | 2     | 0      | 33   |
| Mvmt Flow                | 955    | 13   | 1      | 1236  | 18     | 4    |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 968    | 0     | 1582   | 484  |
| Stage 1                  | -      | -    | -      | -     | 962    | -    |
| Stage 2                  | -      | -    | -      | -     | 620    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 7.56 |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.63 |
| Pot Cap-1 Maneuver       | -      | -    | 720    | -     | 101    | 454  |
| Stage 1                  | -      | -    | -      | -     | 336    | -    |
| Stage 2                  | -      | -    | -      | -     | 504    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 720    | -     | 101    | 454  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 101    | -    |
| Stage 1                  | -      | -    | -      | -     | 336    | -    |
| Stage 2                  | -      | -    | -      | -     | 502    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0      |       | 42.3   |      |
| HCM LOS                  |        |      |        |       | E      |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 119    | -    | -      | 720   | -      |      |
| HCM Lane V/C Ratio       | 0.192  | -    | -      | 0.002 | -      |      |
| HCM Control Delay (s)    | 42.3   | -    | -      | 10    | 0      |      |
| HCM Lane LOS             | E      | -    | -      | B     | A      |      |
| HCM 95th %tile Q(veh)    | 0.7    | -    | -      | 0     | -      |      |

HCM 6th TWSC  
2: White Sulphur Elementary School & Old Cornelia Highway

2035 - Turn Lane Improvements w Widening

AM Peak Hour

| Intersection                                                                                                         |          |        |      |          |      |      |
|----------------------------------------------------------------------------------------------------------------------|----------|--------|------|----------|------|------|
| Int Delay, s/veh                                                                                                     | 63.6     |        |      |          |      |      |
| Movement                                                                                                             | EBT      | EBR    | WBL  | WBT      | NBL  | NBR  |
| Lane Configurations                                                                                                  | ↑↑       | ↗      | ↘    | ↑↑       | ↘    |      |
| Traffic Vol, veh/h                                                                                                   | 623      | 90     | 109  | 1277     | 105  | 89   |
| Future Vol, veh/h                                                                                                    | 623      | 90     | 109  | 1277     | 105  | 89   |
| Conflicting Peds, #/hr                                                                                               | 0        | 0      | 0    | 0        | 0    | 0    |
| Sign Control                                                                                                         | Free     | Free   | Free | Free     | Stop | Stop |
| RT Channelized                                                                                                       | -        | None   | -    | None     | -    | None |
| Storage Length                                                                                                       | -        | 200    | 150  | -        | 0    | -    |
| Veh in Median Storage, #                                                                                             | 0        | -      | -    | 0        | 0    | -    |
| Grade, %                                                                                                             | 0        | -      | -    | 0        | 0    | -    |
| Peak Hour Factor                                                                                                     | 83       | 83     | 83   | 83       | 83   | 83   |
| Heavy Vehicles, %                                                                                                    | 4        | 3      | 3    | 2        | 9    | 10   |
| Mvmt Flow                                                                                                            | 751      | 108    | 131  | 1539     | 127  | 107  |
|                                                                                                                      |          |        |      |          |      |      |
| Major/Minor                                                                                                          | Major1   | Major2 |      | Minor1   |      |      |
| Conflicting Flow All                                                                                                 | 0        | 0      | 859  | 0        | 1783 | 376  |
| Stage 1                                                                                                              | -        | -      | -    | -        | 751  | -    |
| Stage 2                                                                                                              | -        | -      | -    | -        | 1032 | -    |
| Critical Hdwy                                                                                                        | -        | -      | 4.16 | -        | 6.98 | 7.1  |
| Critical Hdwy Stg 1                                                                                                  | -        | -      | -    | -        | 5.98 | -    |
| Critical Hdwy Stg 2                                                                                                  | -        | -      | -    | -        | 5.98 | -    |
| Follow-up Hdwy                                                                                                       | -        | -      | 2.23 | -        | 3.59 | 3.4  |
| Pot Cap-1 Maneuver                                                                                                   | -        | -      | 772  | -        | ~ 68 | 599  |
| Stage 1                                                                                                              | -        | -      | -    | -        | 409  | -    |
| Stage 2                                                                                                              | -        | -      | -    | -        | 289  | -    |
| Platoon blocked, %                                                                                                   | -        | -      | -    | -        | -    | -    |
| Mov Cap-1 Maneuver                                                                                                   | -        | -      | 772  | -        | ~ 56 | 599  |
| Mov Cap-2 Maneuver                                                                                                   | -        | -      | -    | -        | ~ 56 | -    |
| Stage 1                                                                                                              | -        | -      | -    | -        | 409  | -    |
| Stage 2                                                                                                              | -        | -      | -    | -        | 240  | -    |
|                                                                                                                      |          |        |      |          |      |      |
| Approach                                                                                                             | EB       | WB     |      | NB       |      |      |
| HCM Control Delay, s                                                                                                 | 0        | 0.8    |      | \$ 746.5 |      |      |
| HCM LOS                                                                                                              | F        |        |      |          |      |      |
|                                                                                                                      |          |        |      |          |      |      |
| Minor Lane/Major Mvmt                                                                                                | NBLn1    | EBT    | EBR  | WBL      | WBT  |      |
| Capacity (veh/h)                                                                                                     | 96       | -      | -    | 772      | -    |      |
| HCM Lane V/C Ratio                                                                                                   | 2.435    | -      | -    | 0.17     | -    |      |
| HCM Control Delay (s)                                                                                                | \$ 746.5 | -      | -    | 10.6     | -    |      |
| HCM Lane LOS                                                                                                         | F        | -      | -    | B        | -    |      |
| HCM 95th %tile Q(veh)                                                                                                | 21.3     | -      | -    | 0.6      | -    |      |
| Notes                                                                                                                |          |        |      |          |      |      |
| ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    *: All major volume in platoon |          |        |      |          |      |      |

| Intersection               |           |                        |        |                            |          |                                |
|----------------------------|-----------|------------------------|--------|----------------------------|----------|--------------------------------|
| Int Delay, s/veh           | 168.1     |                        |        |                            |          |                                |
| Movement                   | EBT       | EBR                    | WBL    | WBT                        | NBL      | NBR                            |
| Lane Configurations        | ↑↑        | ↑                      | ↑      | ↑↑                         | ↑        | ↑                              |
| Traffic Vol, veh/h         | 601       | 111                    | 98     | 1156                       | 329      | 290                            |
| Future Vol, veh/h          | 601       | 111                    | 98     | 1156                       | 329      | 290                            |
| Conflicting Peds, #/hr     | 0         | 0                      | 0      | 0                          | 0        | 0                              |
| Sign Control               | Free      | Free                   | Free   | Free                       | Stop     | Stop                           |
| RT Channelized             | -         | Free                   | -      | None                       | -        | Yield                          |
| Storage Length             | -         | 100                    | 50     | -                          | 0        | 300                            |
| Veh in Median Storage, #   | 0         | -                      | -      | 0                          | 0        | -                              |
| Grade, %                   | 0         | -                      | -      | 0                          | 0        | -                              |
| Peak Hour Factor           | 92        | 92                     | 92     | 92                         | 92       | 92                             |
| Heavy Vehicles, %          | 2         | 2                      | 2      | 2                          | 2        | 2                              |
| Mvmt Flow                  | 653       | 121                    | 107    | 1257                       | 358      | 315                            |
|                            |           |                        |        |                            |          |                                |
| Major/Minor                | Major1    | Major2                 | Minor1 |                            |          |                                |
| Conflicting Flow All       | 0         | -                      | 653    | 0                          | 1496     | 327                            |
| Stage 1                    | -         | -                      | -      | -                          | 653      | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 843      | -                              |
| Critical Hdwy              | -         | -                      | 4.14   | -                          | 6.84     | 6.94                           |
| Critical Hdwy Stg 1        | -         | -                      | -      | -                          | 5.84     | -                              |
| Critical Hdwy Stg 2        | -         | -                      | -      | -                          | 5.84     | -                              |
| Follow-up Hdwy             | -         | -                      | 2.22   | -                          | 3.52     | 3.32                           |
| Pot Cap-1 Maneuver         | -         | 0                      | 930    | -                          | ~ 113    | 669                            |
| Stage 1                    | -         | 0                      | -      | -                          | 480      | -                              |
| Stage 2                    | -         | 0                      | -      | -                          | 382      | -                              |
| Platoon blocked, %         | -         |                        |        | -                          |          |                                |
| Mov Cap-1 Maneuver         | -         | -                      | 930    | -                          | ~ 100    | 669                            |
| Mov Cap-2 Maneuver         | -         | -                      | -      | -                          | ~ 100    | -                              |
| Stage 1                    | -         | -                      | -      | -                          | 480      | -                              |
| Stage 2                    | -         | -                      | -      | -                          | ~ 338    | -                              |
|                            |           |                        |        |                            |          |                                |
|                            |           |                        |        |                            |          |                                |
| Approach                   | EB        |                        | WB     |                            | NB       |                                |
| HCM Control Delay, s       | 0         |                        | 0.7    |                            | \$ 670.5 |                                |
| HCM LOS                    |           |                        |        |                            | F        |                                |
|                            |           |                        |        |                            |          |                                |
|                            |           |                        |        |                            |          |                                |
| Minor Lane/Major Mvmt      | NBLn1     | NBLn2                  | EBT    | WBL                        | WBT      |                                |
| Capacity (veh/h)           | 100       | 669                    | -      | 930                        | -        |                                |
| HCM Lane V/C Ratio         | 3.576     | 0.471                  | -      | 0.115                      | -        |                                |
| HCM Control Delay (s)      | \$ 1248.2 | 15.1                   | -      | 9.4                        | -        |                                |
| HCM Lane LOS               | F         | C                      | -      | A                          | -        |                                |
| HCM 95th %tile Q(veh)      | 35.9      | 2.5                    | -      | 0.4                        | -        |                                |
| Notes                      |           |                        |        |                            |          |                                |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |        | +: Computation Not Defined |          | *: All major volume in platoon |



| Intersection             |        |      |        |      |        |      |
|--------------------------|--------|------|--------|------|--------|------|
| Int Delay, s/veh         | 0.5    |      |        |      |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT  | NBL    | NBR  |
| Lane Configurations      | ↑↑     |      |        | ↑↑   | ↑↑     |      |
| Traffic Vol, veh/h       | 1375   | 17   | 0      | 851  | 10     | 0    |
| Future Vol, veh/h        | 1375   | 17   | 0      | 851  | 10     | 0    |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0    | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free | Stop   | Stop |
| RT Channelized           | -      | None | -      | None | -      | None |
| Storage Length           | -      | -    | -      | -    | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0    | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0    | 0      | -    |
| Peak Hour Factor         | 90     | 90   | 90     | 90   | 90     | 90   |
| Heavy Vehicles, %        | 1      | 8    | 2      | 1    | 14     | 2    |
| Mvmt Flow                | 1528   | 19   | 0      | 946  | 11     | 0    |
|                          |        |      |        |      |        |      |
| Major/Minor              | Major1 |      | Major2 |      | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1547   | 0    | 2011   | 774  |
| Stage 1                  | -      | -    | -      | -    | 1538   | -    |
| Stage 2                  | -      | -    | -      | -    | 473    | -    |
| Critical Hdwy            | -      | -    | 4.14   | -    | 7.08   | 6.94 |
| Critical Hdwy Stg 1      | -      | -    | -      | -    | 6.08   | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -    | 6.08   | -    |
| Follow-up Hdwy           | -      | -    | 2.22   | -    | 3.64   | 3.32 |
| Pot Cap-1 Maneuver       | -      | -    | 425    | -    | 44     | 341  |
| Stage 1                  | -      | -    | -      | -    | 145    | -    |
| Stage 2                  | -      | -    | -      | -    | 560    | -    |
| Platoon blocked, %       | -      | -    |        | -    |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 425    | -    | 44     | 341  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -    | 44     | -    |
| Stage 1                  | -      | -    | -      | -    | 145    | -    |
| Stage 2                  | -      | -    | -      | -    | 560    | -    |
|                          |        |      |        |      |        |      |
|                          |        |      |        |      |        |      |
| Approach                 | EB     |      | WB     |      | NB     |      |
| HCM Control Delay, s     | 0      |      | 0      |      | 112.5  |      |
| HCM LOS                  |        |      |        |      | F      |      |
|                          |        |      |        |      |        |      |
|                          |        |      |        |      |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL  | WBT    |      |
| Capacity (veh/h)         | 44     | -    | -      | 425  | -      |      |
| HCM Lane V/C Ratio       | 0.253  | -    | -      | -    | -      |      |
| HCM Control Delay (s)    | 112.5  | -    | -      | 0    | -      |      |
| HCM Lane LOS             | F      | -    | -      | A    | -      |      |
| HCM 95th %tile Q(veh)    | 0.8    | -    | -      | 0    | -      |      |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 11.2   |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     | ↗    | ↖      | ↑↑    | ↘      |      |
| Traffic Vol, veh/h       | 1488   | 30   | 41     | 719   | 36     | 76   |
| Future Vol, veh/h        | 1488   | 30   | 41     | 719   | 36     | 76   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1617   | 33   | 45     | 782   | 39     | 83   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1650   | 0     | 2098   | 809  |
| Stage 1                  | -      | -    | -      | -     | 1617   | -    |
| Stage 2                  | -      | -    | -      | -     | 481    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 6.9  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 397    | -     | 46     | 328  |
| Stage 1                  | -      | -    | -      | -     | 151    | -    |
| Stage 2                  | -      | -    | -      | -     | 593    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 397    | -     | 41     | 328  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 41     | -    |
| Stage 1                  | -      | -    | -      | -     | 151    | -    |
| Stage 2                  | -      | -    | -      | -     | 526    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.8    |       | 233.4  |      |
| HCM LOS                  | F      |      |        |       |        |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 101    | -    | -      | 397   | -      |      |
| HCM Lane V/C Ratio       | 1.205  | -    | -      | 0.112 | -      |      |
| HCM Control Delay (s)    | 233.4  | -    | -      | 15.2  | -      |      |
| HCM Lane LOS             | F      | -    | -      | C     | -      |      |
| HCM 95th %tile Q(veh)    | 8.2    | -    | -      | 0.4   | -      |      |

| Intersection               |           |                        |        |                            |           |                                |
|----------------------------|-----------|------------------------|--------|----------------------------|-----------|--------------------------------|
| Int Delay, s/veh           | 878.6     |                        |        |                            |           |                                |
| Movement                   | EBT       | EBR                    | WBL    | WBT                        | NBL       | NBR                            |
| Lane Configurations        | ↑↑        | ↑                      | ↑      | ↑↑                         | ↑         | ↑                              |
| Traffic Vol, veh/h         | 1201      | 363                    | 320    | 541                        | 218       | 192                            |
| Future Vol, veh/h          | 1201      | 363                    | 320    | 541                        | 218       | 192                            |
| Conflicting Peds, #/hr     | 0         | 0                      | 0      | 0                          | 0         | 0                              |
| Sign Control               | Free      | Free                   | Free   | Free                       | Stop      | Stop                           |
| RT Channelized             | -         | Free                   | -      | None                       | -         | Yield                          |
| Storage Length             | -         | 100                    | 50     | -                          | 0         | 300                            |
| Veh in Median Storage, #   | 0         | -                      | -      | 0                          | 0         | -                              |
| Grade, %                   | 0         | -                      | -      | 0                          | 0         | -                              |
| Peak Hour Factor           | 92        | 92                     | 92     | 92                         | 92        | 92                             |
| Heavy Vehicles, %          | 2         | 2                      | 2      | 2                          | 2         | 2                              |
| Mvmt Flow                  | 1305      | 395                    | 348    | 588                        | 237       | 209                            |
|                            |           |                        |        |                            |           |                                |
| Major/Minor                | Major1    |                        | Major2 |                            | Minor1    |                                |
| Conflicting Flow All       | 0         | -                      | 1305   | 0                          | 2295      | 653                            |
| Stage 1                    | -         | -                      | -      | -                          | 1305      | -                              |
| Stage 2                    | -         | -                      | -      | -                          | 990       | -                              |
| Critical Hdwy              | -         | -                      | 4.14   | -                          | 6.84      | 6.94                           |
| Critical Hdwy Stg 1        | -         | -                      | -      | -                          | 5.84      | -                              |
| Critical Hdwy Stg 2        | -         | -                      | -      | -                          | 5.84      | -                              |
| Follow-up Hdwy             | -         | -                      | 2.22   | -                          | 3.52      | 3.32                           |
| Pot Cap-1 Maneuver         | -         | 0                      | 526    | -                          | ~ 33      | 410                            |
| Stage 1                    | -         | 0                      | -      | -                          | ~ 218     | -                              |
| Stage 2                    | -         | 0                      | -      | -                          | 320       | -                              |
| Platoon blocked, %         | -         |                        |        | -                          |           |                                |
| Mov Cap-1 Maneuver         | -         | -                      | 526    | -                          | ~ 11      | 410                            |
| Mov Cap-2 Maneuver         | -         | -                      | -      | -                          | ~ 11      | -                              |
| Stage 1                    | -         | -                      | -      | -                          | ~ 218     | -                              |
| Stage 2                    | -         | -                      | -      | -                          | ~ 108     | -                              |
|                            |           |                        |        |                            |           |                                |
|                            |           |                        |        |                            |           |                                |
| Approach                   | EB        |                        | WB     |                            | NB        |                                |
| HCM Control Delay, s       | 0         |                        | 9      |                            | \$ 5278.3 |                                |
| HCM LOS                    |           |                        |        |                            | F         |                                |
|                            |           |                        |        |                            |           |                                |
|                            |           |                        |        |                            |           |                                |
| Minor Lane/Major Mvmt      | NBLn1     |                        | NBLn2  | EBT                        | WBL       | WBT                            |
| Capacity (veh/h)           | 11        |                        | 410    | -                          | 526       | -                              |
| HCM Lane V/C Ratio         | 21.542    |                        | 0.509  | -                          | 0.661     | -                              |
| HCM Control Delay (s)      | \$ 9907.3 |                        | 22.5   | -                          | 24.2      | -                              |
| HCM Lane LOS               | F         |                        | C      | -                          | C         | -                              |
| HCM 95th %tile Q(veh)      | 31.1      |                        | 2.8    | -                          | 4.8       | -                              |
| Notes                      |           |                        |        |                            |           |                                |
| ~: Volume exceeds capacity |           | \$: Delay exceeds 300s |        | +: Computation Not Defined |           | *: All major volume in platoon |

## **2. TRAFFIC SIGNAL**

## **WITHOUT WIDENING**



| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.5                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 693                                                                               | 11   | 1    | 958                                                                               | 15                                                                                | 3    |
| Future Vol, veh/h        | 693                                                                               | 11   | 1    | 958                                                                               | 15                                                                                | 3    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   |
| Heavy Vehicles, %        | 7                                                                                 | 11   | 0    | 2                                                                                 | 0                                                                                 | 33   |
| Mvmt Flow                | 753                                                                               | 12   | 1    | 1041                                                                              | 16                                                                                | 3    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |       |
|----------------------|--------|--------|--------|---|------|-------|
| Conflicting Flow All | 0      | 0      | 765    | 0 | 1802 | 759   |
| Stage 1              | -      | -      | -      | - | 759  | -     |
| Stage 2              | -      | -      | -      | - | 1043 | -     |
| Critical Hdwy        | -      | -      | 4.1    | - | 6.4  | 6.53  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.4  | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.4  | -     |
| Follow-up Hdwy       | -      | -      | 2.2    | - | 3.5  | 3.597 |
| Pot Cap-1 Maneuver   | -      | -      | 857    | - | 89   | 360   |
| Stage 1              | -      | -      | -      | - | 466  | -     |
| Stage 2              | -      | -      | -      | - | 342  | -     |
| Platoon blocked, %   | -      | -      | -      | - | -    | -     |
| Mov Cap-1 Maneuver   | -      | -      | 857    | - | 89   | 360   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 89   | -     |
| Stage 1              | -      | -      | -      | - | 466  | -     |
| Stage 2              | -      | -      | -      | - | 341  | -     |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 48.5 |
| HCM LOS              |    |    | E    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 102   | -   | -   | 857   | -   |
| HCM Lane V/C Ratio    | 0.192 | -   | -   | 0.001 | -   |
| HCM Control Delay (s) | 48.5  | -   | -   | 9.2   | 0   |
| HCM Lane LOS          | E     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.7   | -   | -   | 0     | -   |

HCM 6th TWSC  
2: White Sulphur Elementary School & Old Cornelia Highway

2025 - Traffic Signal  
AM Peak Hour

| Intersection               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh           | 61.8                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                   | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations        |  |  |  |  |  |  |
| Traffic Vol, veh/h         | 516                                                                               | 77                                                                                | 82                                                                                | 1039                                                                              | 90                                                                                | 72                                                                                |
| Future Vol, veh/h          | 516                                                                               | 77                                                                                | 82                                                                                | 1039                                                                              | 90                                                                                | 72                                                                                |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control               | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop                                                                              | Stop                                                                              |
| RT Channelized             | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length             | -                                                                                 | 200                                                                               | 150                                                                               | -                                                                                 | 0                                                                                 | -                                                                                 |
| Veh in Median Storage, #   | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                   | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor           | 83                                                                                | 83                                                                                | 83                                                                                | 83                                                                                | 83                                                                                | 83                                                                                |
| Heavy Vehicles, %          | 4                                                                                 | 3                                                                                 | 3                                                                                 | 2                                                                                 | 9                                                                                 | 10                                                                                |
| Mvmt Flow                  | 622                                                                               | 93                                                                                | 99                                                                                | 1252                                                                              | 108                                                                               | 87                                                                                |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor                | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   | Minor1                                                                            |                                                                                   |
| Conflicting Flow All       | 0                                                                                 | 0                                                                                 | 715                                                                               | 0                                                                                 | 2072                                                                              | 622                                                                               |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 622                                                                               | -                                                                                 |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 1450                                                                              | -                                                                                 |
| Critical Hdwy              | -                                                                                 | -                                                                                 | 4.13                                                                              | -                                                                                 | 6.49                                                                              | 6.3                                                                               |
| Critical Hdwy Stg 1        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 5.49                                                                              | -                                                                                 |
| Critical Hdwy Stg 2        | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 5.49                                                                              | -                                                                                 |
| Follow-up Hdwy             | -                                                                                 | -                                                                                 | 2.227                                                                             | -                                                                                 | 3.581                                                                             | 3.39                                                                              |
| Pot Cap-1 Maneuver         | -                                                                                 | -                                                                                 | 881                                                                               | -                                                                                 | ~ 57                                                                              | 472                                                                               |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 522                                                                               | -                                                                                 |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 208                                                                               | -                                                                                 |
| Platoon blocked, %         | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver         | -                                                                                 | -                                                                                 | 881                                                                               | -                                                                                 | ~ 51                                                                              | 472                                                                               |
| Mov Cap-2 Maneuver         | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | ~ 51                                                                              | -                                                                                 |
| Stage 1                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 522                                                                               | -                                                                                 |
| Stage 2                    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 185                                                                               | -                                                                                 |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                   | EB                                                                                |                                                                                   | WB                                                                                |                                                                                   | NB                                                                                |                                                                                   |
| HCM Control Delay, s       | 0                                                                                 |                                                                                   | 0.7                                                                               |                                                                                   | \$ 711                                                                            |                                                                                   |
| HCM LOS                    | F                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt      | NBLn1                                                                             | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               |                                                                                   |
| Capacity (veh/h)           | 84                                                                                | -                                                                                 | -                                                                                 | 881                                                                               | -                                                                                 |                                                                                   |
| HCM Lane V/C Ratio         | 2.324                                                                             | -                                                                                 | -                                                                                 | 0.112                                                                             | -                                                                                 |                                                                                   |
| HCM Control Delay (s)      | \$ 711                                                                            | -                                                                                 | -                                                                                 | 9.6                                                                               | -                                                                                 |                                                                                   |
| HCM Lane LOS               | F                                                                                 | -                                                                                 | -                                                                                 | A                                                                                 | -                                                                                 |                                                                                   |
| HCM 95th %tile Q(veh)      | 18                                                                                | -                                                                                 | -                                                                                 | 0.4                                                                               | -                                                                                 |                                                                                   |
| Notes                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s                                                            |                                                                                   | +: Computation Not Defined                                                        |                                                                                   | *: All major volume in platoon                                                    |

# HCM 6th Signalized Intersection Summary

## 4: Driveway #1 & Old Cornelia Highway

2025 - Traffic Signal  
AM Peak Hour

|                              | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|------------------------------|------|------|------|------|------|------|
| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations          | ↑    | ↗    | ↘    | ↑    | ↘    | ↗    |
| Traffic Volume (veh/h)       | 518  | 70   | 62   | 911  | 210  | 185  |
| Future Volume (veh/h)        | 518  | 70   | 62   | 911  | 210  | 185  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 563  | 0    | 67   | 990  | 228  | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1165 |      | 568  | 1363 | 280  |      |
| Arrive On Green              | 0.62 | 0.00 | 0.05 | 0.73 | 0.16 | 0.00 |
| Sat Flow, veh/h              | 1870 | 1585 | 1781 | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 563  | 0    | 67   | 990  | 228  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 1585 | 1781 | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 12.8 | 0.0  | 0.9  | 24.1 | 9.8  | 0.0  |
| Cycle Q Clear(g_c), s        | 12.8 | 0.0  | 0.9  | 24.1 | 9.8  | 0.0  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1165 |      | 568  | 1363 | 280  |      |
| V/C Ratio(X)                 | 0.48 |      | 0.12 | 0.73 | 0.81 |      |
| Avail Cap(c_a), veh/h        | 1513 |      | 619  | 1764 | 598  |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh     | 8.0  | 0.0  | 5.3  | 6.2  | 32.2 | 0.0  |
| Incr Delay (d2), s/veh       | 0.3  | 0.0  | 0.1  | 1.1  | 5.7  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 7.0  | 0.0  | 0.4  | 9.3  | 8.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 8.3  | 0.0  | 5.4  | 7.3  | 37.8 | 0.0  |
| LnGrp LOS                    | A    |      | A    | A    | D    |      |
| Approach Vol, veh/h          | 563  | A    |      | 1057 | 228  | A    |
| Approach Delay, s/veh        | 8.3  |      |      | 7.1  | 37.8 |      |
| Approach LOS                 | A    |      |      | A    | D    |      |
| Timer - Assigned Phs         | 2    |      | 5    |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     | 62.1 |      | 8.4  |      | 53.7 | 16.9 |
| Change Period (Y+Rc), s      | 4.5  |      | 4.5  |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s  | 74.5 |      | 6.1  |      | 63.9 | 26.5 |
| Max Q Clear Time (g_c+I1), s | 26.1 |      | 2.9  |      | 14.8 | 11.8 |
| Green Ext Time (p_c), s      | 31.5 |      | 0.0  |      | 13.7 | 0.7  |
| Intersection Summary         |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 11.3 |      |      |      |
| HCM 6th LOS                  |      |      | B    |      |      |      |

| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.3                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 1144                                                                              | 15   | 0    | 666                                                                               | 8                                                                                 | 0    |
| Future Vol, veh/h        | 1144                                                                              | 15   | 0    | 666                                                                               | 8                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                | 90   |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2    | 1                                                                                 | 14                                                                                | 2    |
| Mvmt Flow                | 1271                                                                              | 17   | 0    | 740                                                                               | 9                                                                                 | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1288   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 538    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 538    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 76.6 |
| HCM LOS              |    |    | F    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 59    | -   | -   | 538 | -   |
| HCM Lane V/C Ratio    | 0.151 | -   | -   | -   | -   |
| HCM Control Delay (s) | 76.6  | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.5   | -   | -   | 0   | -   |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 5.4    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑      | ↗    | ↖      | ↑     | ↘      |      |
| Traffic Vol, veh/h       | 1219   | 25   | 27     | 580   | 31     | 52   |
| Future Vol, veh/h        | 1219   | 25   | 27     | 580   | 31     | 52   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1325   | 27   | 29     | 630   | 34     | 57   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1352   | 0     | 2013   | 1325 |
| Stage 1                  | -      | -    | -      | -     | 1325   | -    |
| Stage 2                  | -      | -    | -      | -     | 688    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.4    | 6.2  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.4    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.4    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 516    | -     | 65     | 192  |
| Stage 1                  | -      | -    | -      | -     | 251    | -    |
| Stage 2                  | -      | -    | -      | -     | 503    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 516    | -     | 61     | 192  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 61     | -    |
| Stage 1                  | -      | -    | -      | -     | 251    | -    |
| Stage 2                  | -      | -    | -      | -     | 475    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.6    |       | 121.7  |      |
| HCM LOS                  | F      |      |        |       |        |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 107    | -    | -      | 516   | -      |      |
| HCM Lane V/C Ratio       | 0.843  | -    | -      | 0.057 | -      |      |
| HCM Control Delay (s)    | 121.7  | -    | -      | 12.4  | -      |      |
| HCM Lane LOS             | F      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 4.9    | -    | -      | 0.2   | -      |      |



# HCM 6th Signalized Intersection Summary

## 4: Driveway #1 & Old Cornelia Highway

2025 - Traffic Signal  
PM Peak Hour

|                                                                                                               | →    | ↘     | ↙    | ←    | ↖    | ↗    |
|---------------------------------------------------------------------------------------------------------------|------|-------|------|------|------|------|
| Movement                                                                                                      | EBT  | EBR   | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations                                                                                           | ↑    | ↑     | ↑    | ↑    | ↑    | ↑    |
| Traffic Volume (veh/h)                                                                                        | 1035 | 236   | 208  | 466  | 141  | 124  |
| Future Volume (veh/h)                                                                                         | 1035 | 236   | 208  | 466  | 141  | 124  |
| Initial Q (Qb), veh                                                                                           | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)                                                                                           |      | 1.00  | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj                                                                                              | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach                                                                                         | No   |       |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln                                                                                        | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h                                                                                          | 1125 | 0     | 226  | 507  | 153  | 0    |
| Peak Hour Factor                                                                                              | 0.92 | 0.92  | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %                                                                                          | 2    | 2     | 2    | 2    | 2    | 2    |
| Cap, veh/h                                                                                                    | 1367 |       | 315  | 1534 | 184  |      |
| Arrive On Green                                                                                               | 0.73 | 0.00  | 0.05 | 0.82 | 0.10 | 0.00 |
| Sat Flow, veh/h                                                                                               | 1870 | 1585  | 1781 | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h                                                                                          | 1125 | 0     | 226  | 507  | 153  | 0    |
| Grp Sat Flow(s),veh/h/ln                                                                                      | 1870 | 1585  | 1781 | 1870 | 1781 | 1585 |
| Q Serve(g_s), s                                                                                               | 47.9 | 0.0   | 3.4  | 7.9  | 9.9  | 0.0  |
| Cycle Q Clear(g_c), s                                                                                         | 47.9 | 0.0   | 3.4  | 7.9  | 9.9  | 0.0  |
| Prop In Lane                                                                                                  |      | 1.00  | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h                                                                                        | 1367 |       | 315  | 1534 | 184  |      |
| V/C Ratio(X)                                                                                                  | 0.82 |       | 0.72 | 0.33 | 0.83 |      |
| Avail Cap(c_a), veh/h                                                                                         | 1533 |       | 549  | 1946 | 280  |      |
| HCM Platoon Ratio                                                                                             | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)                                                                                            | 1.00 | 0.00  | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh                                                                                      | 10.7 | 0.0   | 21.9 | 2.6  | 51.8 | 0.0  |
| Incr Delay (d2), s/veh                                                                                        | 3.4  | 0.0   | 3.1  | 0.1  | 12.1 | 0.0  |
| Initial Q Delay(d3),s/veh                                                                                     | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln                                                                                      | 22.7 | 0.0   | 8.0  | 3.0  | 8.7  | 0.0  |
| Unsig. Movement Delay, s/veh                                                                                  |      |       |      |      |      |      |
| LnGrp Delay(d),s/veh                                                                                          | 14.1 | 0.0   | 25.0 | 2.7  | 63.9 | 0.0  |
| LnGrp LOS                                                                                                     | B    |       | C    | A    | E    |      |
| Approach Vol, veh/h                                                                                           | 1125 | A     |      | 733  | 153  | A    |
| Approach Delay, s/veh                                                                                         | 14.1 |       |      | 9.6  | 63.9 |      |
| Approach LOS                                                                                                  | B    |       |      | A    | E    |      |
| Timer - Assigned Phs                                                                                          |      | 2     |      |      | 5    | 6    |
| Phs Duration (G+Y+Rc), s                                                                                      |      | 101.1 |      |      | 10.6 | 90.5 |
| Change Period (Y+Rc), s                                                                                       |      | 4.5   |      |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s                                                                                   |      | 122.5 |      |      | 21.5 | 96.5 |
| Max Q Clear Time (g_c+I1), s                                                                                  |      | 9.9   |      |      | 5.4  | 49.9 |
| Green Ext Time (p_c), s                                                                                       |      | 13.1  |      |      | 0.6  | 36.2 |
|                                                                                                               |      |       |      |      |      | 0.2  |
| Intersection Summary                                                                                          |      |       |      |      |      |      |
| HCM 6th Ctrl Delay                                                                                            |      |       | 16.3 |      |      |      |
| HCM 6th LOS                                                                                                   |      |       | B    |      |      |      |
| Notes                                                                                                         |      |       |      |      |      |      |
| Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay. |      |       |      |      |      |      |

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0.7                                                                               |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 779                                                                               | 11   | 1      | 1043                                                                              | 16                                                                                | 3     |
| Future Vol, veh/h        | 779                                                                               | 11   | 1      | 1043                                                                              | 16                                                                                | 3     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92   | 92     | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 7                                                                                 | 11   | 0      | 2                                                                                 | 0                                                                                 | 33    |
| Mvmt Flow                | 847                                                                               | 12   | 1      | 1134                                                                              | 17                                                                                | 3     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 859    | 0                                                                                 | 1989                                                                              | 853   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 853                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 1136                                                                              | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.1    | -                                                                                 | 6.4                                                                               | 6.53  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.4                                                                               | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.4                                                                               | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.2    | -                                                                                 | 3.5                                                                               | 3.597 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 791    | -                                                                                 | 68                                                                                | 317   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 421                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 309                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 791    | -                                                                                 | 68                                                                                | 317   |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 68                                                                                | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 421                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 308                                                                               | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0      |                                                                                   | 67                                                                                |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | F                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 78                                                                                | -    | -      | 791                                                                               | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.265                                                                             | -    | -      | 0.001                                                                             | -                                                                                 |       |
| HCM Control Delay (s)    | 67                                                                                | -    | -      | 9.6                                                                               | 0                                                                                 |       |
| HCM Lane LOS             | F                                                                                 | -    | -      | A                                                                                 | A                                                                                 |       |
| HCM 95th %tile Q(veh)    | 1                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection                                                                                                         |           |      |        |       |           |      |
|----------------------------------------------------------------------------------------------------------------------|-----------|------|--------|-------|-----------|------|
| Int Delay, s/veh                                                                                                     | 111       |      |        |       |           |      |
| Movement                                                                                                             | EBT       | EBR  | WBL    | WBT   | NBL       | NBR  |
| Lane Configurations                                                                                                  | ↑         | ↗    | ↖      | ↑     | ↘         |      |
| Traffic Vol, veh/h                                                                                                   | 567       | 83   | 94     | 1150  | 97        | 80   |
| Future Vol, veh/h                                                                                                    | 567       | 83   | 94     | 1150  | 97        | 80   |
| Conflicting Peds, #/hr                                                                                               | 0         | 0    | 0      | 0     | 0         | 0    |
| Sign Control                                                                                                         | Free      | Free | Free   | Free  | Stop      | Stop |
| RT Channelized                                                                                                       | -         | None | -      | None  | -         | None |
| Storage Length                                                                                                       | -         | 200  | 150    | -     | 0         | -    |
| Veh in Median Storage, #                                                                                             | 0         | -    | -      | 0     | 0         | -    |
| Grade, %                                                                                                             | 0         | -    | -      | 0     | 0         | -    |
| Peak Hour Factor                                                                                                     | 83        | 83   | 83     | 83    | 83        | 83   |
| Heavy Vehicles, %                                                                                                    | 4         | 3    | 3      | 2     | 9         | 10   |
| Mvmt Flow                                                                                                            | 683       | 100  | 113    | 1386  | 117       | 96   |
|                                                                                                                      |           |      |        |       |           |      |
| Major/Minor                                                                                                          | Major1    |      | Major2 |       | Minor1    |      |
| Conflicting Flow All                                                                                                 | 0         | 0    | 783    | 0     | 2295      | 683  |
| Stage 1                                                                                                              | -         | -    | -      | -     | 683       | -    |
| Stage 2                                                                                                              | -         | -    | -      | -     | 1612      | -    |
| Critical Hdwy                                                                                                        | -         | -    | 4.13   | -     | 6.49      | 6.3  |
| Critical Hdwy Stg 1                                                                                                  | -         | -    | -      | -     | 5.49      | -    |
| Critical Hdwy Stg 2                                                                                                  | -         | -    | -      | -     | 5.49      | -    |
| Follow-up Hdwy                                                                                                       | -         | -    | 2.227  | -     | 3.581     | 3.39 |
| Pot Cap-1 Maneuver                                                                                                   | -         | -    | 831    | -     | ~ 41      | 436  |
| Stage 1                                                                                                              | -         | -    | -      | -     | 489       | -    |
| Stage 2                                                                                                              | -         | -    | -      | -     | 173       | -    |
| Platoon blocked, %                                                                                                   | -         | -    |        | -     |           |      |
| Mov Cap-1 Maneuver                                                                                                   | -         | -    | 831    | -     | ~ 35      | 436  |
| Mov Cap-2 Maneuver                                                                                                   | -         | -    | -      | -     | ~ 35      | -    |
| Stage 1                                                                                                              | -         | -    | -      | -     | 489       | -    |
| Stage 2                                                                                                              | -         | -    | -      | -     | 149       | -    |
|                                                                                                                      |           |      |        |       |           |      |
| Approach                                                                                                             | EB        |      | WB     |       | NB        |      |
| HCM Control Delay, s                                                                                                 | 0         |      | 0.8    |       | \$ 1292.6 |      |
| HCM LOS                                                                                                              | F         |      |        |       |           |      |
|                                                                                                                      |           |      |        |       |           |      |
| Minor Lane/Major Mvmt                                                                                                | NBLn1     | EBT  | EBR    | WBL   | WBT       |      |
| Capacity (veh/h)                                                                                                     | 60        | -    | -      | 831   | -         |      |
| HCM Lane V/C Ratio                                                                                                   | 3.554     | -    | -      | 0.136 | -         |      |
| HCM Control Delay (s)                                                                                                | \$ 1292.6 | -    | -      | 10    | -         |      |
| HCM Lane LOS                                                                                                         | F         | -    | -      | B     | -         |      |
| HCM 95th %tile Q(veh)                                                                                                | 22.7      | -    | -      | 0.5   | -         |      |
| Notes                                                                                                                |           |      |        |       |           |      |
| ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    *: All major volume in platoon |           |      |        |       |           |      |

# HCM 6th Signalized Intersection Summary

## 4: Driveway #1 & Old Cornelia Highway

2030 - Traffic Signal  
AM Peak Hour

|                              |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Movement                     | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations          |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 557                                                                               | 90                                                                                | 80                                                                                | 979                                                                               | 265                                                                               | 233                                                                               |
| Future Volume (veh/h)        | 557                                                                               | 90                                                                                | 80                                                                                | 979                                                                               | 265                                                                               | 233                                                                               |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Ped-Bike Adj(A_pbT)          |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                | No                                                                                |                                                                                   |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              |
| Adj Flow Rate, veh/h         | 605                                                                               | 0                                                                                 | 87                                                                                | 1064                                                                              | 288                                                                               | 0                                                                                 |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Cap, veh/h                   | 1153                                                                              |                                                                                   | 519                                                                               | 1337                                                                              | 333                                                                               |                                                                                   |
| Arrive On Green              | 0.62                                                                              | 0.00                                                                              | 0.05                                                                              | 0.71                                                                              | 0.19                                                                              | 0.00                                                                              |
| Sat Flow, veh/h              | 1870                                                                              | 1585                                                                              | 1781                                                                              | 1870                                                                              | 1781                                                                              | 1585                                                                              |
| Grp Volume(v), veh/h         | 605                                                                               | 0                                                                                 | 87                                                                                | 1064                                                                              | 288                                                                               | 0                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1870                                                                              | 1585                                                                              | 1781                                                                              | 1870                                                                              | 1781                                                                              | 1585                                                                              |
| Q Serve(g_s), s              | 16.7                                                                              | 0.0                                                                               | 1.5                                                                               | 34.4                                                                              | 14.3                                                                              | 0.0                                                                               |
| Cycle Q Clear(g_c), s        | 16.7                                                                              | 0.0                                                                               | 1.5                                                                               | 34.4                                                                              | 14.3                                                                              | 0.0                                                                               |
| Prop In Lane                 |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Lane Grp Cap(c), veh/h       | 1153                                                                              |                                                                                   | 519                                                                               | 1337                                                                              | 333                                                                               |                                                                                   |
| V/C Ratio(X)                 | 0.52                                                                              |                                                                                   | 0.17                                                                              | 0.80                                                                              | 0.87                                                                              |                                                                                   |
| Avail Cap(c_a), veh/h        | 1308                                                                              |                                                                                   | 551                                                                               | 1525                                                                              | 517                                                                               |                                                                                   |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              |
| Uniform Delay (d), s/veh     | 9.9                                                                               | 0.0                                                                               | 6.8                                                                               | 8.6                                                                               | 36.0                                                                              | 0.0                                                                               |
| Incr Delay (d2), s/veh       | 0.4                                                                               | 0.0                                                                               | 0.2                                                                               | 2.7                                                                               | 9.2                                                                               | 0.0                                                                               |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |
| %ile BackOfQ(95%),veh/ln     | 9.5                                                                               | 0.0                                                                               | 0.8                                                                               | 15.3                                                                              | 11.3                                                                              | 0.0                                                                               |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| LnGrp Delay(d),s/veh         | 10.3                                                                              | 0.0                                                                               | 7.0                                                                               | 11.3                                                                              | 45.3                                                                              | 0.0                                                                               |
| LnGrp LOS                    | B                                                                                 |                                                                                   | A                                                                                 | B                                                                                 | D                                                                                 |                                                                                   |
| Approach Vol, veh/h          | 605                                                                               | A                                                                                 |                                                                                   | 1151                                                                              | 288                                                                               | A                                                                                 |
| Approach Delay, s/veh        | 10.3                                                                              |                                                                                   |                                                                                   | 11.0                                                                              | 45.3                                                                              |                                                                                   |
| Approach LOS                 | B                                                                                 |                                                                                   |                                                                                   | B                                                                                 | D                                                                                 |                                                                                   |
| Timer - Assigned Phs         | 2                                                                                 |                                                                                   | 5                                                                                 |                                                                                   | 6                                                                                 | 8                                                                                 |
| Phs Duration (G+Y+Rc), s     | 69.8                                                                              |                                                                                   | 9.0                                                                               |                                                                                   | 60.8                                                                              | 21.6                                                                              |
| Change Period (Y+Rc), s      | 4.5                                                                               |                                                                                   | 4.5                                                                               |                                                                                   | 4.5                                                                               | 4.5                                                                               |
| Max Green Setting (Gmax), s  | 74.5                                                                              |                                                                                   | 6.1                                                                               |                                                                                   | 63.9                                                                              | 26.5                                                                              |
| Max Q Clear Time (g_c+I1), s | 36.4                                                                              |                                                                                   | 3.5                                                                               |                                                                                   | 18.7                                                                              | 16.3                                                                              |
| Green Ext Time (p_c), s      | 28.9                                                                              |                                                                                   | 0.0                                                                               |                                                                                   | 14.8                                                                              | 0.7                                                                               |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th Ctrl Delay           | 15.6                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

### Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.5                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 1251                                                                              | 16   | 0    | 745                                                                               | 9                                                                                 | 0    |
| Future Vol, veh/h        | 1251                                                                              | 16   | 0    | 745                                                                               | 9                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                | 90   |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2    | 1                                                                                 | 14                                                                                | 2    |
| Mvmt Flow                | 1390                                                                              | 18   | 0    | 828                                                                               | 10                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1408   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 485    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 485    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB    |
|----------------------|----|----|-------|
| HCM Control Delay, s | 0  | 0  | 109.4 |
| HCM LOS              |    |    | F     |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 44    | -   | -   | 485 | -   |
| HCM Lane V/C Ratio    | 0.227 | -   | -   | -   | -   |
| HCM Control Delay (s) | 109.4 | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.8   | -   | -   | 0   | -   |



| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 11.9   |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑      | ↗    | ↖      | ↑     | ↘      |      |
| Traffic Vol, veh/h       | 1339   | 27   | 33     | 644   | 33     | 62   |
| Future Vol, veh/h        | 1339   | 27   | 33     | 644   | 33     | 62   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1455   | 29   | 36     | 700   | 36     | 67   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1484   | 0     | 2227   | 1455 |
| Stage 1                  | -      | -    | -      | -     | 1455   | -    |
| Stage 2                  | -      | -    | -      | -     | 772    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.4    | 6.2  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.4    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.4    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 459    | -     | 48     | 161  |
| Stage 1                  | -      | -    | -      | -     | 217    | -    |
| Stage 2                  | -      | -    | -      | -     | 459    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 459    | -     | 44     | 161  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 44     | -    |
| Stage 1                  | -      | -    | -      | -     | 217    | -    |
| Stage 2                  | -      | -    | -      | -     | 423    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.7    |       | 261.8  |      |
| HCM LOS                  |        |      |        |       | F      |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 84     | -    | -      | 459   | -      |      |
| HCM Lane V/C Ratio       | 1.229  | -    | -      | 0.078 | -      |      |
| HCM Control Delay (s)    | 261.8  | -    | -      | 13.5  | -      |      |
| HCM Lane LOS             | F      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 7.5    | -    | -      | 0.3   | -      |      |

# HCM 6th Signalized Intersection Summary

## 4: Driveway #1 & Old Cornelia Highway

2030 - Traffic Signal  
PM Peak Hour

|                                                                                                               |  |  |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Movement                                                                                                      | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations                                                                                           | ↑                                                                                 | ↑                                                                                 | ↑                                                                                 | ↑                                                                                 | ↑                                                                                 | ↑                                                                                 |
| Traffic Volume (veh/h)                                                                                        | 1113                                                                              | 288                                                                               | 253                                                                               | 501                                                                               | 176                                                                               | 154                                                                               |
| Future Volume (veh/h)                                                                                         | 1113                                                                              | 288                                                                               | 253                                                                               | 501                                                                               | 176                                                                               | 154                                                                               |
| Initial Q (Qb), veh                                                                                           | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Ped-Bike Adj(A_pbT)                                                                                           |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Parking Bus, Adj                                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Work Zone On Approach                                                                                         | No                                                                                |                                                                                   |                                                                                   | No                                                                                | No                                                                                |                                                                                   |
| Adj Sat Flow, veh/h/ln                                                                                        | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              |
| Adj Flow Rate, veh/h                                                                                          | 1210                                                                              | 0                                                                                 | 275                                                                               | 545                                                                               | 191                                                                               | 0                                                                                 |
| Peak Hour Factor                                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Percent Heavy Veh, %                                                                                          | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Cap, veh/h                                                                                                    | 1225                                                                              |                                                                                   | 297                                                                               | 1532                                                                              | 213                                                                               |                                                                                   |
| Arrive On Green                                                                                               | 0.66                                                                              | 0.00                                                                              | 0.13                                                                              | 0.82                                                                              | 0.12                                                                              | 0.00                                                                              |
| Sat Flow, veh/h                                                                                               | 1870                                                                              | 1585                                                                              | 1781                                                                              | 1870                                                                              | 1781                                                                              | 1585                                                                              |
| Grp Volume(v), veh/h                                                                                          | 1210                                                                              | 0                                                                                 | 275                                                                               | 545                                                                               | 191                                                                               | 0                                                                                 |
| Grp Sat Flow(s),veh/h/ln                                                                                      | 1870                                                                              | 1585                                                                              | 1781                                                                              | 1870                                                                              | 1781                                                                              | 1585                                                                              |
| Q Serve(g_s), s                                                                                               | 93.1                                                                              | 0.0                                                                               | 17.5                                                                              | 10.9                                                                              | 15.6                                                                              | 0.0                                                                               |
| Cycle Q Clear(g_c), s                                                                                         | 93.1                                                                              | 0.0                                                                               | 17.5                                                                              | 10.9                                                                              | 15.6                                                                              | 0.0                                                                               |
| Prop In Lane                                                                                                  |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Lane Grp Cap(c), veh/h                                                                                        | 1225                                                                              |                                                                                   | 297                                                                               | 1532                                                                              | 213                                                                               |                                                                                   |
| V/C Ratio(X)                                                                                                  | 0.99                                                                              |                                                                                   | 0.92                                                                              | 0.36                                                                              | 0.90                                                                              |                                                                                   |
| Avail Cap(c_a), veh/h                                                                                         | 1226                                                                              |                                                                                   | 320                                                                               | 1556                                                                              | 224                                                                               |                                                                                   |
| HCM Platoon Ratio                                                                                             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Upstream Filter(I)                                                                                            | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              |
| Uniform Delay (d), s/veh                                                                                      | 24.8                                                                              | 0.0                                                                               | 54.6                                                                              | 3.4                                                                               | 63.9                                                                              | 0.0                                                                               |
| Incr Delay (d2), s/veh                                                                                        | 22.6                                                                              | 0.0                                                                               | 30.5                                                                              | 0.1                                                                               | 32.9                                                                              | 0.0                                                                               |
| Initial Q Delay(d3),s/veh                                                                                     | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |
| %ile BackOfQ(95%),veh/ln                                                                                      | 54.7                                                                              | 0.0                                                                               | 18.2                                                                              | 5.4                                                                               | 14.0                                                                              | 0.0                                                                               |
| Unsig. Movement Delay, s/veh                                                                                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| LnGrp Delay(d),s/veh                                                                                          | 47.5                                                                              | 0.0                                                                               | 85.1                                                                              | 3.5                                                                               | 96.8                                                                              | 0.0                                                                               |
| LnGrp LOS                                                                                                     | D                                                                                 |                                                                                   | F                                                                                 | A                                                                                 | F                                                                                 |                                                                                   |
| Approach Vol, veh/h                                                                                           | 1210                                                                              | A                                                                                 |                                                                                   | 820                                                                               | 191                                                                               | A                                                                                 |
| Approach Delay, s/veh                                                                                         | 47.5                                                                              |                                                                                   |                                                                                   | 30.9                                                                              | 96.8                                                                              |                                                                                   |
| Approach LOS                                                                                                  | D                                                                                 |                                                                                   |                                                                                   | C                                                                                 | F                                                                                 |                                                                                   |
| Timer - Assigned Phs                                                                                          |                                                                                   | 2                                                                                 |                                                                                   |                                                                                   | 5                                                                                 | 6                                                                                 |
| Phs Duration (G+Y+Rc), s                                                                                      |                                                                                   | 125.1                                                                             |                                                                                   |                                                                                   | 24.2                                                                              | 101.0                                                                             |
| Change Period (Y+Rc), s                                                                                       |                                                                                   | 4.5                                                                               |                                                                                   |                                                                                   | 4.5                                                                               | 4.5                                                                               |
| Max Green Setting (Gmax), s                                                                                   |                                                                                   | 122.5                                                                             |                                                                                   |                                                                                   | 21.5                                                                              | 96.5                                                                              |
| Max Q Clear Time (g_c+I1), s                                                                                  |                                                                                   | 12.9                                                                              |                                                                                   |                                                                                   | 19.5                                                                              | 95.1                                                                              |
| Green Ext Time (p_c), s                                                                                       |                                                                                   | 14.7                                                                              |                                                                                   |                                                                                   | 0.2                                                                               | 1.4                                                                               |
|                                                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 0.1                                                                               |
| <b>Intersection Summary</b>                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th Ctrl Delay                                                                                            |                                                                                   |                                                                                   | 45.6                                                                              |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th LOS                                                                                                   |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| <b>Notes</b>                                                                                                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay. |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

| Intersection             |                                                                                   |        |      |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|--------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 1                                                                                 |        |      |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR    | WBL  | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |        |      |  |  |       |
| Traffic Vol, veh/h       | 879                                                                               | 12     | 1    | 1137                                                                              | 17                                                                                | 4     |
| Future Vol, veh/h        | 879                                                                               | 12     | 1    | 1137                                                                              | 17                                                                                | 4     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0      | 0    | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free   | Free | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None   | -    | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -      | -    | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -      | -    | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -      | -    | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 92                                                                                | 92     | 92   | 92                                                                                | 92                                                                                | 92    |
| Heavy Vehicles, %        | 7                                                                                 | 11     | 0    | 2                                                                                 | 0                                                                                 | 33    |
| Mvmt Flow                | 955                                                                               | 13     | 1    | 1236                                                                              | 18                                                                                | 4     |
|                          |                                                                                   |        |      |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            | Major2 |      | Minor1                                                                            |                                                                                   |       |
| Conflicting Flow All     | 0                                                                                 | 0      | 968  | 0                                                                                 | 2200                                                                              | 962   |
| Stage 1                  | -                                                                                 | -      | -    | -                                                                                 | 962                                                                               | -     |
| Stage 2                  | -                                                                                 | -      | -    | -                                                                                 | 1238                                                                              | -     |
| Critical Hdwy            | -                                                                                 | -      | 4.1  | -                                                                                 | 6.4                                                                               | 6.53  |
| Critical Hdwy Stg 1      | -                                                                                 | -      | -    | -                                                                                 | 5.4                                                                               | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -      | -    | -                                                                                 | 5.4                                                                               | -     |
| Follow-up Hdwy           | -                                                                                 | -      | 2.2  | -                                                                                 | 3.5                                                                               | 3.597 |
| Pot Cap-1 Maneuver       | -                                                                                 | -      | 720  | -                                                                                 | 50                                                                                | 272   |
| Stage 1                  | -                                                                                 | -      | -    | -                                                                                 | 374                                                                               | -     |
| Stage 2                  | -                                                                                 | -      | -    | -                                                                                 | 276                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -      |      | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -      | 720  | -                                                                                 | 50                                                                                | 272   |
| Mov Cap-2 Maneuver       | -                                                                                 | -      | -    | -                                                                                 | 50                                                                                | -     |
| Stage 1                  | -                                                                                 | -      | -    | -                                                                                 | 374                                                                               | -     |
| Stage 2                  | -                                                                                 | -      | -    | -                                                                                 | 275                                                                               | -     |
|                          |                                                                                   |        |      |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |      |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                | WB     |      | NB                                                                                |                                                                                   |       |
| HCM Control Delay, s     | 0                                                                                 | 0      |      | 100.3                                                                             |                                                                                   |       |
| HCM LOS                  | F                                                                                 |        |      |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |      |                                                                                   |                                                                                   |       |
|                          |                                                                                   |        |      |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT    | EBR  | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 59                                                                                | -      | -    | 720                                                                               | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.387                                                                             | -      | -    | 0.002                                                                             | -                                                                                 |       |
| HCM Control Delay (s)    | 100.3                                                                             | -      | -    | 10                                                                                | 0                                                                                 |       |
| HCM Lane LOS             | F                                                                                 | -      | -    | B                                                                                 | A                                                                                 |       |
| HCM 95th %tile Q(veh)    | 1.4                                                                               | -      | -    | 0                                                                                 | -                                                                                 |       |

| Intersection                                                                                                         |           |        |       |           |       |      |
|----------------------------------------------------------------------------------------------------------------------|-----------|--------|-------|-----------|-------|------|
| Int Delay, s/veh                                                                                                     | 195.9     |        |       |           |       |      |
| Movement                                                                                                             | EBT       | EBR    | WBL   | WBT       | NBL   | NBR  |
| Lane Configurations                                                                                                  | ↑         | ↗      | ↖     | ↑         | ↘     |      |
| Traffic Vol, veh/h                                                                                                   | 623       | 90     | 109   | 1277      | 105   | 89   |
| Future Vol, veh/h                                                                                                    | 623       | 90     | 109   | 1277      | 105   | 89   |
| Conflicting Peds, #/hr                                                                                               | 0         | 0      | 0     | 0         | 0     | 0    |
| Sign Control                                                                                                         | Free      | Free   | Free  | Free      | Stop  | Stop |
| RT Channelized                                                                                                       | -         | None   | -     | None      | -     | None |
| Storage Length                                                                                                       | -         | 200    | 150   | -         | 0     | -    |
| Veh in Median Storage, #                                                                                             | 0         | -      | -     | 0         | 0     | -    |
| Grade, %                                                                                                             | 0         | -      | -     | 0         | 0     | -    |
| Peak Hour Factor                                                                                                     | 83        | 83     | 83    | 83        | 83    | 83   |
| Heavy Vehicles, %                                                                                                    | 4         | 3      | 3     | 2         | 9     | 10   |
| Mvmt Flow                                                                                                            | 751       | 108    | 131   | 1539      | 127   | 107  |
|                                                                                                                      |           |        |       |           |       |      |
| Major/Minor                                                                                                          | Major1    | Major2 |       | Minor1    |       |      |
| Conflicting Flow All                                                                                                 | 0         | 0      | 859   | 0         | 2552  | 751  |
| Stage 1                                                                                                              | -         | -      | -     | -         | 751   | -    |
| Stage 2                                                                                                              | -         | -      | -     | -         | 1801  | -    |
| Critical Hdwy                                                                                                        | -         | -      | 4.13  | -         | 6.49  | 6.3  |
| Critical Hdwy Stg 1                                                                                                  | -         | -      | -     | -         | 5.49  | -    |
| Critical Hdwy Stg 2                                                                                                  | -         | -      | -     | -         | 5.49  | -    |
| Follow-up Hdwy                                                                                                       | -         | -      | 2.227 | -         | 3.581 | 3.39 |
| Pot Cap-1 Maneuver                                                                                                   | -         | -      | 778   | -         | ~ 28  | 398  |
| Stage 1                                                                                                              | -         | -      | -     | -         | 454   | -    |
| Stage 2                                                                                                              | -         | -      | -     | -         | 139   | -    |
| Platoon blocked, %                                                                                                   | -         | -      | -     | -         | -     | -    |
| Mov Cap-1 Maneuver                                                                                                   | -         | -      | 778   | -         | ~ 23  | 398  |
| Mov Cap-2 Maneuver                                                                                                   | -         | -      | -     | -         | ~ 23  | -    |
| Stage 1                                                                                                              | -         | -      | -     | -         | 454   | -    |
| Stage 2                                                                                                              | -         | -      | -     | -         | ~ 116 | -    |
|                                                                                                                      |           |        |       |           |       |      |
| Approach                                                                                                             | EB        | WB     |       | NB        |       |      |
| HCM Control Delay, s                                                                                                 | 0         | 0.8    |       | \$ 2309.8 |       |      |
| HCM LOS                                                                                                              | F         |        |       |           |       |      |
|                                                                                                                      |           |        |       |           |       |      |
| Minor Lane/Major Mvmt                                                                                                | NBLn1     | EBT    | EBR   | WBL       | WBT   |      |
| Capacity (veh/h)                                                                                                     | 41        | -      | -     | 778       | -     |      |
| HCM Lane V/C Ratio                                                                                                   | 5.701     | -      | -     | 0.169     | -     |      |
| HCM Control Delay (s)                                                                                                | \$ 2309.8 | -      | -     | 10.6      | -     |      |
| HCM Lane LOS                                                                                                         | F         | -      | -     | B         | -     |      |
| HCM 95th %tile Q(veh)                                                                                                | 27.3      | -      | -     | 0.6       | -     |      |
| Notes                                                                                                                |           |        |       |           |       |      |
| ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    *: All major volume in platoon |           |        |       |           |       |      |

# HCM 6th Signalized Intersection Summary

## 4: Driveway #1 & Old Cornelia Highway

2035 - Traffic Signal  
AM Peak Hour

|                              | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|------------------------------|------|------|------|------|------|------|
| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations          | ↑    | ↑    | ↑    | ↑    | ↑    | ↑    |
| Traffic Volume (veh/h)       | 601  | 111  | 98   | 1156 | 329  | 290  |
| Future Volume (veh/h)        | 601  | 111  | 98   | 1156 | 329  | 290  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 653  | 0    | 107  | 1257 | 358  | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1139 |      | 459  | 1302 | 391  |      |
| Arrive On Green              | 0.61 | 0.00 | 0.04 | 0.70 | 0.22 | 0.00 |
| Sat Flow, veh/h              | 1870 | 1585 | 1781 | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 653  | 0    | 107  | 1257 | 358  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 1585 | 1781 | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 22.4 | 0.0  | 2.2  | 66.5 | 20.9 | 0.0  |
| Cycle Q Clear(g_c), s        | 22.4 | 0.0  | 2.2  | 66.5 | 20.9 | 0.0  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1139 |      | 459  | 1302 | 391  |      |
| V/C Ratio(X)                 | 0.57 |      | 0.23 | 0.97 | 0.92 |      |
| Avail Cap(c_a), veh/h        | 1139 |      | 481  | 1306 | 442  |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh     | 12.5 | 0.0  | 9.3  | 15.0 | 40.7 | 0.0  |
| Incr Delay (d2), s/veh       | 0.7  | 0.0  | 0.3  | 17.2 | 22.1 | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 13.0 | 0.0  | 1.3  | 35.7 | 17.0 | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 13.2 | 0.0  | 9.6  | 32.3 | 62.8 | 0.0  |
| LnGrp LOS                    | B    |      | A    | C    | E    |      |
| Approach Vol, veh/h          | 653  | A    |      | 1364 | 358  | A    |
| Approach Delay, s/veh        | 13.2 |      |      | 30.5 | 62.8 |      |
| Approach LOS                 | B    |      |      | C    | E    |      |
| Timer - Assigned Phs         |      | 2    |      |      | 5    | 6    |
| Phs Duration (G+Y+Rc), s     |      | 78.8 |      |      | 9.3  | 69.5 |
| Change Period (Y+Rc), s      |      | 4.5  |      |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s  |      | 74.5 |      |      | 6.1  | 63.9 |
| Max Q Clear Time (g_c+I1), s |      | 68.5 |      |      | 4.2  | 24.4 |
| Green Ext Time (p_c), s      |      | 5.8  |      |      | 0.0  | 15.6 |
|                              |      |      |      |      |      | 0.5  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 30.6 |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |

### Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.



| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.8                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 1375                                                                              | 17   | 0    | 851                                                                               | 10                                                                                | 0    |
| Future Vol, veh/h        | 1375                                                                              | 17   | 0    | 851                                                                               | 10                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                | 90   |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2    | 1                                                                                 | 14                                                                                | 2    |
| Mvmt Flow                | 1528                                                                              | 19   | 0    | 946                                                                               | 11                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1547   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 429    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 429    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB    |
|----------------------|----|----|-------|
| HCM Control Delay, s | 0  | 0  | 183.5 |
| HCM LOS              |    |    | F     |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 30    | -   | -   | 429 | -   |
| HCM Lane V/C Ratio    | 0.37  | -   | -   | -   | -   |
| HCM Control Delay (s) | 183.5 | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 1.2   | -   | -   | 0   | -   |

| Intersection               |          |                        |        |                            |          |                                |
|----------------------------|----------|------------------------|--------|----------------------------|----------|--------------------------------|
| Int Delay, s/veh           | 28.8     |                        |        |                            |          |                                |
| Movement                   | EBT      | EBR                    | WBL    | WBT                        | NBL      | NBR                            |
| Lane Configurations        | ↑        | ↗                      | ↖      | ↑                          | ↘        |                                |
| Traffic Vol, veh/h         | 1488     | 30                     | 41     | 719                        | 36       | 76                             |
| Future Vol, veh/h          | 1488     | 30                     | 41     | 719                        | 36       | 76                             |
| Conflicting Peds, #/hr     | 0        | 0                      | 0      | 0                          | 0        | 0                              |
| Sign Control               | Free     | Free                   | Free   | Free                       | Stop     | Stop                           |
| RT Channelized             | -        | None                   | -      | None                       | -        | None                           |
| Storage Length             | -        | 200                    | 150    | -                          | 0        | -                              |
| Veh in Median Storage, #   | 0        | -                      | -      | 0                          | 0        | -                              |
| Grade, %                   | 0        | -                      | -      | 0                          | 0        | -                              |
| Peak Hour Factor           | 92       | 92                     | 92     | 92                         | 92       | 92                             |
| Heavy Vehicles, %          | 9        | 0                      | 0      | 2                          | 0        | 0                              |
| Mvmt Flow                  | 1617     | 33                     | 45     | 782                        | 39       | 83                             |
|                            |          |                        |        |                            |          |                                |
| Major/Minor                | Major1   |                        | Major2 |                            | Minor1   |                                |
| Conflicting Flow All       | 0        | 0                      | 1650   | 0                          | 2489     | 1617                           |
| Stage 1                    | -        | -                      | -      | -                          | 1617     | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 872      | -                              |
| Critical Hdwy              | -        | -                      | 4.1    | -                          | 6.4      | 6.2                            |
| Critical Hdwy Stg 1        | -        | -                      | -      | -                          | 5.4      | -                              |
| Critical Hdwy Stg 2        | -        | -                      | -      | -                          | 5.4      | -                              |
| Follow-up Hdwy             | -        | -                      | 2.2    | -                          | 3.5      | 3.3                            |
| Pot Cap-1 Maneuver         | -        | -                      | 397    | -                          | ~ 33     | 129                            |
| Stage 1                    | -        | -                      | -      | -                          | 180      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 412      | -                              |
| Platoon blocked, %         | -        | -                      |        | -                          |          |                                |
| Mov Cap-1 Maneuver         | -        | -                      | 397    | -                          | ~ 29     | 129                            |
| Mov Cap-2 Maneuver         | -        | -                      | -      | -                          | ~ 29     | -                              |
| Stage 1                    | -        | -                      | -      | -                          | 180      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 365      | -                              |
|                            |          |                        |        |                            |          |                                |
| Approach                   | EB       |                        | WB     |                            | NB       |                                |
| HCM Control Delay, s       | 0        |                        | 0.8    |                            | \$ 609.3 |                                |
| HCM LOS                    |          |                        |        |                            | F        |                                |
|                            |          |                        |        |                            |          |                                |
| Minor Lane/Major Mvmt      | NBLn1    | EBT                    | EBR    | WBL                        | WBT      |                                |
| Capacity (veh/h)           | 61       | -                      | -      | 397                        | -        |                                |
| HCM Lane V/C Ratio         | 1.996    | -                      | -      | 0.112                      | -        |                                |
| HCM Control Delay (s)      | \$ 609.3 | -                      | -      | 15.2                       | -        |                                |
| HCM Lane LOS               | F        | -                      | -      | C                          | -        |                                |
| HCM 95th %tile Q(veh)      | 11.5     | -                      | -      | 0.4                        | -        |                                |
| Notes                      |          |                        |        |                            |          |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |        | +: Computation Not Defined |          | *: All major volume in platoon |

# HCM 6th Signalized Intersection Summary

## 4: Driveway #1 & Old Cornelia Highway

2035 - Traffic Signal  
PM Peak Hour

|                              | →    | ↘     | ↙     | ←    | ↖     | ↗     |
|------------------------------|------|-------|-------|------|-------|-------|
| Movement                     | EBT  | EBR   | WBL   | WBT  | NBL   | NBR   |
| Lane Configurations          | ↑    | ↑     | ↑     | ↑    | ↑     | ↑     |
| Traffic Volume (veh/h)       | 1201 | 363   | 320   | 541  | 218   | 192   |
| Future Volume (veh/h)        | 1201 | 363   | 320   | 541  | 218   | 192   |
| Initial Q (Qb), veh          | 0    | 0     | 0     | 0    | 0     | 0     |
| Ped-Bike Adj(A_pbT)          |      | 1.00  | 1.00  |      | 1.00  | 1.00  |
| Parking Bus, Adj             | 1.00 | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  |
| Work Zone On Approach        | No   |       |       | No   | No    |       |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870  | 1870  | 1870 | 1870  | 1870  |
| Adj Flow Rate, veh/h         | 1305 | 0     | 348   | 588  | 237   | 0     |
| Peak Hour Factor             | 0.92 | 0.92  | 0.92  | 0.92 | 0.92  | 0.92  |
| Percent Heavy Veh, %         | 2    | 2     | 2     | 2    | 2     | 2     |
| Cap, veh/h                   | 1203 |       | 303   | 1527 | 220   |       |
| Arrive On Green              | 0.64 | 0.00  | 0.14  | 0.82 | 0.12  | 0.00  |
| Sat Flow, veh/h              | 1870 | 1585  | 1781  | 1870 | 1781  | 1585  |
| Grp Volume(v), veh/h         | 1305 | 0     | 348   | 588  | 237   | 0     |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 1585  | 1781  | 1870 | 1781  | 1585  |
| Q Serve(g_s), s              | 96.5 | 0.0   | 21.5  | 12.6 | 18.5  | 0.0   |
| Cycle Q Clear(g_c), s        | 96.5 | 0.0   | 21.5  | 12.6 | 18.5  | 0.0   |
| Prop In Lane                 |      | 1.00  | 1.00  |      | 1.00  | 1.00  |
| Lane Grp Cap(c), veh/h       | 1203 |       | 303   | 1527 | 220   |       |
| V/C Ratio(X)                 | 1.08 |       | 1.15  | 0.38 | 1.08  |       |
| Avail Cap(c_a), veh/h        | 1203 |       | 303   | 1527 | 220   |       |
| HCM Platoon Ratio            | 1.00 | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  |
| Upstream Filter(I)           | 1.00 | 0.00  | 1.00  | 1.00 | 1.00  | 0.00  |
| Uniform Delay (d), s/veh     | 26.8 | 0.0   | 57.8  | 3.7  | 65.8  | 0.0   |
| Incr Delay (d2), s/veh       | 52.1 | 0.0   | 97.7  | 0.2  | 83.2  | 0.0   |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0   | 0.0   | 0.0  | 0.0   | 0.0   |
| %ile BackOfQ(95%),veh/ln     | 72.8 | 0.0   | 28.1  | 6.4  | 20.2  | 0.0   |
| Unsig. Movement Delay, s/veh |      |       |       |      |       |       |
| LnGrp Delay(d),s/veh         | 78.8 | 0.0   | 155.5 | 3.8  | 149.0 | 0.0   |
| LnGrp LOS                    | F    |       | F     | A    | F     |       |
| Approach Vol, veh/h          | 1305 | A     |       | 936  | 237   | A     |
| Approach Delay, s/veh        | 78.8 |       |       | 60.2 | 149.0 |       |
| Approach LOS                 | E    |       |       | E    | F     |       |
| Timer - Assigned Phs         |      | 2     |       |      | 5     | 6     |
| Phs Duration (G+Y+Rc), s     |      | 127.0 |       |      | 26.0  | 101.0 |
| Change Period (Y+Rc), s      |      | 4.5   |       |      | 4.5   | 4.5   |
| Max Green Setting (Gmax), s  |      | 122.5 |       |      | 21.5  | 96.5  |
| Max Q Clear Time (g_c+I1), s |      | 14.6  |       |      | 23.5  | 98.5  |
| Green Ext Time (p_c), s      |      | 16.7  |       |      | 0.0   | 0.0   |
| Intersection Summary         |      |       |       |      |       |       |
| HCM 6th Ctrl Delay           |      |       | 78.5  |      |       |       |
| HCM 6th LOS                  |      |       | E     |      |       |       |

### Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.8                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR  | WBL  | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 1375                                                                              | 17   | 0    | 851                                                                               | 10                                                                                | 0    |
| Future Vol, veh/h        | 1375                                                                              | 17   | 0    | 851                                                                               | 10                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free | Free | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None | -    | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -    | -    | -                                                                                 | 0                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -    | -    | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 90                                                                                | 90   | 90   | 90                                                                                | 90                                                                                | 90   |
| Heavy Vehicles, %        | 1                                                                                 | 8    | 2    | 1                                                                                 | 14                                                                                | 2    |
| Mvmt Flow                | 1528                                                                              | 19   | 0    | 946                                                                               | 11                                                                                | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 1547   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 429    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 429    |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB | NB    |
|----------------------|----|----|-------|
| HCM Control Delay, s | 0  | 0  | 183.5 |
| HCM LOS              |    |    | F     |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 30    | -   | -   | 429 | -   |
| HCM Lane V/C Ratio    | 0.37  | -   | -   | -   | -   |
| HCM Control Delay (s) | 183.5 | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 1.2   | -   | -   | 0   | -   |

| Intersection                                                                                                         |          |      |        |       |          |      |
|----------------------------------------------------------------------------------------------------------------------|----------|------|--------|-------|----------|------|
| Int Delay, s/veh                                                                                                     | 28.8     |      |        |       |          |      |
| Movement                                                                                                             | EBT      | EBR  | WBL    | WBT   | NBL      | NBR  |
| Lane Configurations                                                                                                  | ↑        | ↗    | ↖      | ↑     | ↘        |      |
| Traffic Vol, veh/h                                                                                                   | 1488     | 30   | 41     | 719   | 36       | 76   |
| Future Vol, veh/h                                                                                                    | 1488     | 30   | 41     | 719   | 36       | 76   |
| Conflicting Peds, #/hr                                                                                               | 0        | 0    | 0      | 0     | 0        | 0    |
| Sign Control                                                                                                         | Free     | Free | Free   | Free  | Stop     | Stop |
| RT Channelized                                                                                                       | -        | None | -      | None  | -        | None |
| Storage Length                                                                                                       | -        | 200  | 150    | -     | 0        | -    |
| Veh in Median Storage, #                                                                                             | 0        | -    | -      | 0     | 0        | -    |
| Grade, %                                                                                                             | 0        | -    | -      | 0     | 0        | -    |
| Peak Hour Factor                                                                                                     | 92       | 92   | 92     | 92    | 92       | 92   |
| Heavy Vehicles, %                                                                                                    | 9        | 0    | 0      | 2     | 0        | 0    |
| Mvmt Flow                                                                                                            | 1617     | 33   | 45     | 782   | 39       | 83   |
|                                                                                                                      |          |      |        |       |          |      |
| Major/Minor                                                                                                          | Major1   |      | Major2 |       | Minor1   |      |
| Conflicting Flow All                                                                                                 | 0        | 0    | 1650   | 0     | 2489     | 1617 |
| Stage 1                                                                                                              | -        | -    | -      | -     | 1617     | -    |
| Stage 2                                                                                                              | -        | -    | -      | -     | 872      | -    |
| Critical Hdwy                                                                                                        | -        | -    | 4.1    | -     | 6.4      | 6.2  |
| Critical Hdwy Stg 1                                                                                                  | -        | -    | -      | -     | 5.4      | -    |
| Critical Hdwy Stg 2                                                                                                  | -        | -    | -      | -     | 5.4      | -    |
| Follow-up Hdwy                                                                                                       | -        | -    | 2.2    | -     | 3.5      | 3.3  |
| Pot Cap-1 Maneuver                                                                                                   | -        | -    | 397    | -     | ~ 33     | 129  |
| Stage 1                                                                                                              | -        | -    | -      | -     | 180      | -    |
| Stage 2                                                                                                              | -        | -    | -      | -     | 412      | -    |
| Platoon blocked, %                                                                                                   | -        | -    |        | -     |          |      |
| Mov Cap-1 Maneuver                                                                                                   | -        | -    | 397    | -     | ~ 29     | 129  |
| Mov Cap-2 Maneuver                                                                                                   | -        | -    | -      | -     | ~ 29     | -    |
| Stage 1                                                                                                              | -        | -    | -      | -     | 180      | -    |
| Stage 2                                                                                                              | -        | -    | -      | -     | 365      | -    |
|                                                                                                                      |          |      |        |       |          |      |
| Approach                                                                                                             | EB       |      | WB     |       | NB       |      |
| HCM Control Delay, s                                                                                                 | 0        |      | 0.8    |       | \$ 609.3 |      |
| HCM LOS                                                                                                              | F        |      |        |       |          |      |
|                                                                                                                      |          |      |        |       |          |      |
| Minor Lane/Major Mvmt                                                                                                | NBLn1    | EBT  | EBR    | WBL   | WBT      |      |
| Capacity (veh/h)                                                                                                     | 61       | -    | -      | 397   | -        |      |
| HCM Lane V/C Ratio                                                                                                   | 1.996    | -    | -      | 0.112 | -        |      |
| HCM Control Delay (s)                                                                                                | \$ 609.3 | -    | -      | 15.2  | -        |      |
| HCM Lane LOS                                                                                                         | F        | -    | -      | C     | -        |      |
| HCM 95th %tile Q(veh)                                                                                                | 11.5     | -    | -      | 0.4   | -        |      |
| Notes                                                                                                                |          |      |        |       |          |      |
| ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    *: All major volume in platoon |          |      |        |       |          |      |



# HCM 6th Signalized Intersection Summary

## 4: Driveway #1 & Old Cornelia Highway

2035 - Traffic Signal  
PM Peak Hour

|                              | →     | ↘    | ↙     | ←    | ↖     | ↗    |
|------------------------------|-------|------|-------|------|-------|------|
| Movement                     | EBT   | EBR  | WBL   | WBT  | NBL   | NBR  |
| Lane Configurations          | ↑     | ↗    | ↙     | ↑    | ↙     | ↗    |
| Traffic Volume (veh/h)       | 1201  | 363  | 320   | 541  | 218   | 192  |
| Future Volume (veh/h)        | 1201  | 363  | 320   | 541  | 218   | 192  |
| Initial Q (Qb), veh          | 0     | 0    | 0     | 0    | 0     | 0    |
| Ped-Bike Adj(A_pbT)          |       | 1.00 | 1.00  |      | 1.00  | 1.00 |
| Parking Bus, Adj             | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 |
| Work Zone On Approach        | No    |      |       | No   | No    |      |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 |
| Adj Flow Rate, veh/h         | 1305  | 0    | 348   | 588  | 237   | 0    |
| Peak Hour Factor             | 0.92  | 0.92 | 0.92  | 0.92 | 0.92  | 0.92 |
| Percent Heavy Veh, %         | 2     | 2    | 2     | 2    | 2     | 2    |
| Cap, veh/h                   | 1203  |      | 303   | 1527 | 220   |      |
| Arrive On Green              | 0.64  | 0.00 | 0.14  | 0.82 | 0.12  | 0.00 |
| Sat Flow, veh/h              | 1870  | 1585 | 1781  | 1870 | 1781  | 1585 |
| Grp Volume(v), veh/h         | 1305  | 0    | 348   | 588  | 237   | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1870  | 1585 | 1781  | 1870 | 1781  | 1585 |
| Q Serve(g_s), s              | 96.5  | 0.0  | 21.5  | 12.6 | 18.5  | 0.0  |
| Cycle Q Clear(g_c), s        | 96.5  | 0.0  | 21.5  | 12.6 | 18.5  | 0.0  |
| Prop In Lane                 |       | 1.00 | 1.00  |      | 1.00  | 1.00 |
| Lane Grp Cap(c), veh/h       | 1203  |      | 303   | 1527 | 220   |      |
| V/C Ratio(X)                 | 1.08  |      | 1.15  | 0.38 | 1.08  |      |
| Avail Cap(c_a), veh/h        | 1203  |      | 303   | 1527 | 220   |      |
| HCM Platoon Ratio            | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 |
| Upstream Filter(I)           | 1.00  | 0.00 | 1.00  | 1.00 | 1.00  | 0.00 |
| Uniform Delay (d), s/veh     | 26.8  | 0.0  | 57.8  | 3.7  | 65.8  | 0.0  |
| Incr Delay (d2), s/veh       | 52.1  | 0.0  | 97.7  | 0.2  | 83.2  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 72.8  | 0.0  | 28.1  | 6.4  | 20.2  | 0.0  |
| Unsig. Movement Delay, s/veh |       |      |       |      |       |      |
| LnGrp Delay(d),s/veh         | 78.8  | 0.0  | 155.5 | 3.8  | 149.0 | 0.0  |
| LnGrp LOS                    | F     |      | F     | A    | F     |      |
| Approach Vol, veh/h          | 1305  | A    |       | 936  | 237   | A    |
| Approach Delay, s/veh        | 78.8  |      |       | 60.2 | 149.0 |      |
| Approach LOS                 | E     |      |       | E    | F     |      |
| Timer - Assigned Phs         | 2     |      | 5     |      | 6     | 8    |
| Phs Duration (G+Y+Rc), s     | 127.0 |      | 26.0  |      | 101.0 | 23.0 |
| Change Period (Y+Rc), s      | 4.5   |      | 4.5   |      | 4.5   | 4.5  |
| Max Green Setting (Gmax), s  | 122.5 |      | 21.5  |      | 96.5  | 18.5 |
| Max Q Clear Time (g_c+I1), s | 14.6  |      | 23.5  |      | 98.5  | 20.5 |
| Green Ext Time (p_c), s      | 16.7  |      | 0.0   |      | 0.0   | 0.0  |
| Intersection Summary         |       |      |       |      |       |      |
| HCM 6th Ctrl Delay           |       |      | 78.5  |      |       |      |
| HCM 6th LOS                  |       |      | E     |      |       |      |
| Notes                        |       |      |       |      |       |      |

**WITH WIDENING**

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑↑   |      |
| Traffic Vol, veh/h       | 693  | 11   | 1    | 958  | 15   | 3    |
| Future Vol, veh/h        | 693  | 11   | 1    | 958  | 15   | 3    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 7    | 11   | 0    | 2    | 0    | 33   |
| Mvmt Flow                | 753  | 12   | 1    | 1041 | 16   | 3    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |      |
|----------------------|--------|--------|--------|---|------|------|
| Conflicting Flow All | 0      | 0      | 765    | 0 | 1282 | 383  |
| Stage 1              | -      | -      | -      | - | 759  | -    |
| Stage 2              | -      | -      | -      | - | 523  | -    |
| Critical Hdwy        | -      | -      | 4.1    | - | 6.8  | 7.56 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.8  | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.8  | -    |
| Follow-up Hdwy       | -      | -      | 2.2    | - | 3.5  | 3.63 |
| Pot Cap-1 Maneuver   | -      | -      | 857    | - | 160  | 535  |
| Stage 1              | -      | -      | -      | - | 428  | -    |
| Stage 2              | -      | -      | -      | - | 565  | -    |
| Platoon blocked, %   | -      | -      | -      | - | -    | -    |
| Mov Cap-1 Maneuver   | -      | -      | 857    | - | 160  | 535  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 160  | -    |
| Stage 1              | -      | -      | -      | - | 428  | -    |
| Stage 2              | -      | -      | -      | - | 563  | -    |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 27.3 |
| HCM LOS              |    |    | D    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 181   | -   | -   | 857   | -   |
| HCM Lane V/C Ratio    | 0.108 | -   | -   | 0.001 | -   |
| HCM Control Delay (s) | 27.3  | -   | -   | 9.2   | 0   |
| HCM Lane LOS          | D     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.4   | -   | -   | 0     | -   |

| Intersection               |        |                        |        |                            |        |                                |
|----------------------------|--------|------------------------|--------|----------------------------|--------|--------------------------------|
| Int Delay, s/veh           | 16.8   |                        |        |                            |        |                                |
| Movement                   | EBT    | EBR                    | WBL    | WBT                        | NBL    | NBR                            |
| Lane Configurations        | ↑↑     | ↗                      | ↖      | ↑↑                         | ↘      |                                |
| Traffic Vol, veh/h         | 516    | 77                     | 82     | 1039                       | 90     | 72                             |
| Future Vol, veh/h          | 516    | 77                     | 82     | 1039                       | 90     | 72                             |
| Conflicting Peds, #/hr     | 0      | 0                      | 0      | 0                          | 0      | 0                              |
| Sign Control               | Free   | Free                   | Free   | Free                       | Stop   | Stop                           |
| RT Channelized             | -      | None                   | -      | None                       | -      | None                           |
| Storage Length             | -      | 200                    | 150    | -                          | 0      | -                              |
| Veh in Median Storage, #   | 0      | -                      | -      | 0                          | 0      | -                              |
| Grade, %                   | 0      | -                      | -      | 0                          | 0      | -                              |
| Peak Hour Factor           | 83     | 83                     | 83     | 83                         | 83     | 83                             |
| Heavy Vehicles, %          | 4      | 3                      | 3      | 2                          | 9      | 10                             |
| Mvmt Flow                  | 622    | 93                     | 99     | 1252                       | 108    | 87                             |
|                            |        |                        |        |                            |        |                                |
| Major/Minor                | Major1 |                        | Major2 |                            | Minor1 |                                |
| Conflicting Flow All       | 0      | 0                      | 715    | 0                          | 1446   | 311                            |
| Stage 1                    | -      | -                      | -      | -                          | 622    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 824    | -                              |
| Critical Hdwy              | -      | -                      | 4.16   | -                          | 6.98   | 7.1                            |
| Critical Hdwy Stg 1        | -      | -                      | -      | -                          | 5.98   | -                              |
| Critical Hdwy Stg 2        | -      | -                      | -      | -                          | 5.98   | -                              |
| Follow-up Hdwy             | -      | -                      | 2.23   | -                          | 3.59   | 3.4                            |
| Pot Cap-1 Maneuver         | -      | -                      | 875    | -                          | 115    | 662                            |
| Stage 1                    | -      | -                      | -      | -                          | 479    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 374    | -                              |
| Platoon blocked, %         | -      | -                      |        | -                          |        |                                |
| Mov Cap-1 Maneuver         | -      | -                      | 875    | - ~ 102                    | 662    |                                |
| Mov Cap-2 Maneuver         | -      | -                      | -      | - ~ 102                    | -      |                                |
| Stage 1                    | -      | -                      | -      | -                          | 479    | -                              |
| Stage 2                    | -      | -                      | -      | -                          | 332    | -                              |
|                            |        |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Approach                   | EB     |                        | WB     |                            | NB     |                                |
| HCM Control Delay, s       | 0      |                        | 0.7    |                            | 189.3  |                                |
| HCM LOS                    |        |                        |        |                            | F      |                                |
|                            |        |                        |        |                            |        |                                |
|                            |        |                        |        |                            |        |                                |
| Minor Lane/Major Mvmt      | NBLn1  | EBT                    | EBR    | WBL                        | WBT    |                                |
| Capacity (veh/h)           | 163    | -                      | -      | 875                        | -      |                                |
| HCM Lane V/C Ratio         | 1.197  | -                      | -      | 0.113                      | -      |                                |
| HCM Control Delay (s)      | 189.3  | -                      | -      | 9.6                        | -      |                                |
| HCM Lane LOS               | F      | -                      | -      | A                          | -      |                                |
| HCM 95th %tile Q(veh)      | 10.8   | -                      | -      | 0.4                        | -      |                                |
| Notes                      |        |                        |        |                            |        |                                |
| ~: Volume exceeds capacity |        | \$: Delay exceeds 300s |        | +: Computation Not Defined |        | *: All major volume in platoon |

# HCM 6th Signalized Intersection Summary 4: Driveway #1 & Old Cornelia Highway

2025 - Traffic Signal w Widening  
AM Peak Hour

|                              | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|------------------------------|------|------|------|------|------|------|
| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations          | ↑↑   | ↑    | ↓    | ↑↑   | ↓    | ↑    |
| Traffic Volume (veh/h)       | 518  | 70   | 62   | 911  | 210  | 185  |
| Future Volume (veh/h)        | 518  | 70   | 62   | 911  | 210  | 185  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 563  | 0    | 67   | 990  | 228  | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1748 |      | 588  | 2284 | 315  |      |
| Arrive On Green              | 0.49 | 0.00 | 0.06 | 0.64 | 0.18 | 0.00 |
| Sat Flow, veh/h              | 3647 | 1585 | 1781 | 3647 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 563  | 0    | 67   | 990  | 228  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1777 | 1585 | 1781 | 1777 | 1781 | 1585 |
| Q Serve(g_s), s              | 4.8  | 0.0  | 0.8  | 6.9  | 6.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 4.8  | 0.0  | 0.8  | 6.9  | 6.0  | 0.0  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1748 |      | 588  | 2284 | 315  |      |
| V/C Ratio(X)                 | 0.32 |      | 0.11 | 0.43 | 0.72 |      |
| Avail Cap(c_a), veh/h        | 2603 |      | 748  | 3458 | 1162 |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh     | 7.6  | 0.0  | 4.8  | 4.4  | 19.4 | 0.0  |
| Incr Delay (d2), s/veh       | 0.1  | 0.0  | 0.1  | 0.1  | 3.2  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 2.1  | 0.0  | 0.3  | 1.8  | 4.5  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 7.8  | 0.0  | 4.9  | 4.5  | 22.5 | 0.0  |
| LnGrp LOS                    | A    |      | A    | A    | C    |      |
| Approach Vol, veh/h          | 563  | A    |      | 1057 | 228  | A    |
| Approach Delay, s/veh        | 7.8  |      |      | 4.6  | 22.5 |      |
| Approach LOS                 | A    |      |      | A    | C    |      |
| Timer - Assigned Phs         |      | 2    |      |      | 5    | 6    |
| Phs Duration (G+Y+Rc), s     |      | 36.5 |      |      | 7.5  | 29.0 |
| Change Period (Y+Rc), s      |      | 4.5  |      |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s  |      | 48.5 |      |      | 7.5  | 36.5 |
| Max Q Clear Time (g_c+I1), s |      | 8.9  |      |      | 2.8  | 6.8  |
| Green Ext Time (p_c), s      |      | 23.2 |      |      | 0.0  | 10.7 |
|                              |      |      |      |      |      | 0.8  |
| Intersection Summary         |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 7.8  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

## Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.



| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.2  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑    |      |
| Traffic Vol, veh/h       | 1144 | 15   | 0    | 666  | 8    | 0    |
| Future Vol, veh/h        | 1144 | 15   | 0    | 666  | 8    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 90   | 90   | 90   | 90   | 90   | 90   |
| Heavy Vehicles, %        | 1    | 8    | 2    | 1    | 14   | 2    |
| Mvmt Flow                | 1271 | 17   | 0    | 740  | 9    | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |      |
|----------------------|--------|--------|--------|---|------|------|
| Conflicting Flow All | 0      | 0      | 1288   | 0 | 1650 | 644  |
| Stage 1              | -      | -      | -      | - | 1280 | -    |
| Stage 2              | -      | -      | -      | - | 370  | -    |
| Critical Hdwy        | -      | -      | 4.14   | - | 7.08 | 6.94 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 6.08 | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 6.08 | -    |
| Follow-up Hdwy       | -      | -      | 2.22   | - | 3.64 | 3.32 |
| Pot Cap-1 Maneuver   | -      | -      | 534    | - | 79   | 416  |
| Stage 1              | -      | -      | -      | - | 203  | -    |
| Stage 2              | -      | -      | -      | - | 635  | -    |
| Platoon blocked, %   | -      | -      | -      | - | -    | -    |
| Mov Cap-1 Maneuver   | -      | -      | 534    | - | 79   | 416  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 79   | -    |
| Stage 1              | -      | -      | -      | - | 203  | -    |
| Stage 2              | -      | -      | -      | - | 635  | -    |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 56.3 |
| HCM LOS              |    |    | F    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 79    | -   | -   | 534 | -   |
| HCM Lane V/C Ratio    | 0.113 | -   | -   | -   | -   |
| HCM Control Delay (s) | 56.3  | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.4   | -   | -   | 0   | -   |

| Intersection             |        |        |      |        |      |      |
|--------------------------|--------|--------|------|--------|------|------|
| Int Delay, s/veh         | 2.4    |        |      |        |      |      |
| Movement                 | EBT    | EBR    | WBL  | WBT    | NBL  | NBR  |
| Lane Configurations      | ↑↑     | ↑      | ↑    | ↑↑     | ↑↑   |      |
| Traffic Vol, veh/h       | 1219   | 25     | 27   | 580    | 31   | 52   |
| Future Vol, veh/h        | 1219   | 25     | 27   | 580    | 31   | 52   |
| Conflicting Peds, #/hr   | 0      | 0      | 0    | 0      | 0    | 0    |
| Sign Control             | Free   | Free   | Free | Free   | Stop | Stop |
| RT Channelized           | -      | None   | -    | None   | -    | None |
| Storage Length           | -      | 200    | 150  | -      | 0    | -    |
| Veh in Median Storage, # | 0      | -      | -    | 0      | 0    | -    |
| Grade, %                 | 0      | -      | -    | 0      | 0    | -    |
| Peak Hour Factor         | 92     | 92     | 92   | 92     | 92   | 92   |
| Heavy Vehicles, %        | 9      | 0      | 0    | 2      | 0    | 0    |
| Mvmt Flow                | 1325   | 27     | 29   | 630    | 34   | 57   |
|                          |        |        |      |        |      |      |
| Major/Minor              | Major1 | Major2 |      | Minor1 |      |      |
| Conflicting Flow All     | 0      | 0      | 1352 | 0      | 1698 | 663  |
| Stage 1                  | -      | -      | -    | -      | 1325 | -    |
| Stage 2                  | -      | -      | -    | -      | 373  | -    |
| Critical Hdwy            | -      | -      | 4.1  | -      | 6.8  | 6.9  |
| Critical Hdwy Stg 1      | -      | -      | -    | -      | 5.8  | -    |
| Critical Hdwy Stg 2      | -      | -      | -    | -      | 5.8  | -    |
| Follow-up Hdwy           | -      | -      | 2.2  | -      | 3.5  | 3.3  |
| Pot Cap-1 Maneuver       | -      | -      | 516  | -      | 85   | 409  |
| Stage 1                  | -      | -      | -    | -      | 216  | -    |
| Stage 2                  | -      | -      | -    | -      | 672  | -    |
| Platoon blocked, %       | -      | -      |      | -      |      |      |
| Mov Cap-1 Maneuver       | -      | -      | 516  | -      | 80   | 409  |
| Mov Cap-2 Maneuver       | -      | -      | -    | -      | 80   | -    |
| Stage 1                  | -      | -      | -    | -      | 216  | -    |
| Stage 2                  | -      | -      | -    | -      | 634  | -    |
|                          |        |        |      |        |      |      |
|                          |        |        |      |        |      |      |
| Approach                 | EB     | WB     |      | NB     |      |      |
| HCM Control Delay, s     | 0      | 0.6    |      | 52.6   |      |      |
| HCM LOS                  | F      |        |      |        |      |      |
|                          |        |        |      |        |      |      |
|                          |        |        |      |        |      |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT    | EBR  | WBL    | WBT  |      |
| Capacity (veh/h)         | 161    | -      | -    | 516    | -    |      |
| HCM Lane V/C Ratio       | 0.56   | -      | -    | 0.057  | -    |      |
| HCM Control Delay (s)    | 52.6   | -      | -    | 12.4   | -    |      |
| HCM Lane LOS             | F      | -      | -    | B      | -    |      |
| HCM 95th %tile Q(veh)    | 2.9    | -      | -    | 0.2    | -    |      |

# HCM 6th Signalized Intersection Summary

## 4: Driveway #1 & Old Cornelia Highway

2025 - Traffic Signal w Widening  
PM Peak Hour

|                              | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|------------------------------|------|------|------|------|------|------|
| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations          | ↑↑   | ↑    | ↘    | ↑↑   | ↘    | ↗    |
| Traffic Volume (veh/h)       | 1035 | 236  | 208  | 466  | 141  | 124  |
| Future Volume (veh/h)        | 1035 | 236  | 208  | 466  | 141  | 124  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 1125 | 0    | 226  | 507  | 153  | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1992 |      | 457  | 2575 | 218  |      |
| Arrive On Green              | 0.56 | 0.00 | 0.09 | 0.72 | 0.12 | 0.00 |
| Sat Flow, veh/h              | 3647 | 1585 | 1781 | 3647 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 1125 | 0    | 226  | 507  | 153  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1777 | 1585 | 1781 | 1777 | 1781 | 1585 |
| Q Serve(g_s), s              | 12.0 | 0.0  | 2.7  | 2.7  | 4.9  | 0.0  |
| Cycle Q Clear(g_c), s        | 12.0 | 0.0  | 2.7  | 2.7  | 4.9  | 0.0  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1992 |      | 457  | 2575 | 218  |      |
| V/C Ratio(X)                 | 0.56 |      | 0.49 | 0.20 | 0.70 |      |
| Avail Cap(c_a), veh/h        | 2385 |      | 861  | 3774 | 560  |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh     | 8.3  | 0.0  | 6.4  | 2.6  | 24.8 | 0.0  |
| Incr Delay (d2), s/veh       | 0.3  | 0.0  | 0.8  | 0.0  | 4.1  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 5.5  | 0.0  | 0.9  | 0.5  | 3.9  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 8.6  | 0.0  | 7.3  | 2.6  | 28.9 | 0.0  |
| LnGrp LOS                    | A    |      | A    | A    | C    |      |
| Approach Vol, veh/h          | 1125 | A    |      | 733  | 153  | A    |
| Approach Delay, s/veh        | 8.6  |      |      | 4.1  | 28.9 |      |
| Approach LOS                 | A    |      |      | A    | C    |      |
| Timer - Assigned Phs         |      | 2    |      |      | 5    | 6    |
| Phs Duration (G+Y+Rc), s     |      | 47.1 |      |      | 9.7  | 37.5 |
| Change Period (Y+Rc), s      |      | 4.5  |      |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s  |      | 62.5 |      |      | 18.5 | 39.5 |
| Max Q Clear Time (g_c+I1), s |      | 4.7  |      |      | 4.7  | 14.0 |
| Green Ext Time (p_c), s      |      | 11.8 |      |      | 0.6  | 19.0 |
|                              |      |      |      |      |      | 0.3  |
| Intersection Summary         |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 8.5  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

### Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 0.3    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     |      |        | ↑↑    | ↑↑     |      |
| Traffic Vol, veh/h       | 779    | 11   | 1      | 1043  | 16     | 3    |
| Future Vol, veh/h        | 779    | 11   | 1      | 1043  | 16     | 3    |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | -    | -      | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 7      | 11   | 0      | 2     | 0      | 33   |
| Mvmt Flow                | 847    | 12   | 1      | 1134  | 17     | 3    |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 859    | 0     | 1422   | 430  |
| Stage 1                  | -      | -    | -      | -     | 853    | -    |
| Stage 2                  | -      | -    | -      | -     | 569    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 7.56 |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.63 |
| Pot Cap-1 Maneuver       | -      | -    | 791    | -     | 129    | 495  |
| Stage 1                  | -      | -    | -      | -     | 383    | -    |
| Stage 2                  | -      | -    | -      | -     | 535    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 791    | -     | 129    | 495  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 129    | -    |
| Stage 1                  | -      | -    | -      | -     | 383    | -    |
| Stage 2                  | -      | -    | -      | -     | 533    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0      |       | 33.7   |      |
| HCM LOS                  |        |      |        |       | D      |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 146    | -    | -      | 791   | -      |      |
| HCM Lane V/C Ratio       | 0.141  | -    | -      | 0.001 | -      |      |
| HCM Control Delay (s)    | 33.7   | -    | -      | 9.6   | 0      |      |
| HCM Lane LOS             | D      | -    | -      | A     | A      |      |
| HCM 95th %tile Q(veh)    | 0.5    | -    | -      | 0     | -      |      |

| Intersection               |          |                        |        |                            |          |                                |
|----------------------------|----------|------------------------|--------|----------------------------|----------|--------------------------------|
| Int Delay, s/veh           | 33.4     |                        |        |                            |          |                                |
| Movement                   | EBT      | EBR                    | WBL    | WBT                        | NBL      | NBR                            |
| Lane Configurations        | ↑↑       | ↑                      | ↓      | ↑↑                         | ↓        |                                |
| Traffic Vol, veh/h         | 567      | 83                     | 94     | 1150                       | 97       | 80                             |
| Future Vol, veh/h          | 567      | 83                     | 94     | 1150                       | 97       | 80                             |
| Conflicting Peds, #/hr     | 0        | 0                      | 0      | 0                          | 0        | 0                              |
| Sign Control               | Free     | Free                   | Free   | Free                       | Stop     | Stop                           |
| RT Channelized             | -        | None                   | -      | None                       | -        | None                           |
| Storage Length             | -        | 200                    | 150    | -                          | 0        | -                              |
| Veh in Median Storage, #   | 0        | -                      | -      | 0                          | 0        | -                              |
| Grade, %                   | 0        | -                      | -      | 0                          | 0        | -                              |
| Peak Hour Factor           | 83       | 83                     | 83     | 83                         | 83       | 83                             |
| Heavy Vehicles, %          | 4        | 3                      | 3      | 2                          | 9        | 10                             |
| Mvmt Flow                  | 683      | 100                    | 113    | 1386                       | 117      | 96                             |
|                            |          |                        |        |                            |          |                                |
| Major/Minor                | Major1   |                        | Major2 |                            | Minor1   |                                |
| Conflicting Flow All       | 0        | 0                      | 783    | 0                          | 1602     | 342                            |
| Stage 1                    | -        | -                      | -      | -                          | 683      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 919      | -                              |
| Critical Hdwy              | -        | -                      | 4.16   | -                          | 6.98     | 7.1                            |
| Critical Hdwy Stg 1        | -        | -                      | -      | -                          | 5.98     | -                              |
| Critical Hdwy Stg 2        | -        | -                      | -      | -                          | 5.98     | -                              |
| Follow-up Hdwy             | -        | -                      | 2.23   | -                          | 3.59     | 3.4                            |
| Pot Cap-1 Maneuver         | -        | -                      | 824    | -                          | ~ 90     | 631                            |
| Stage 1                    | -        | -                      | -      | -                          | 445      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 333      | -                              |
| Platoon blocked, %         | -        | -                      | -      | -                          | -        | -                              |
| Mov Cap-1 Maneuver         | -        | -                      | 824    | -                          | ~ 78     | 631                            |
| Mov Cap-2 Maneuver         | -        | -                      | -      | -                          | ~ 78     | -                              |
| Stage 1                    | -        | -                      | -      | -                          | 445      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 287      | -                              |
|                            |          |                        |        |                            |          |                                |
| Approach                   | EB       |                        | WB     |                            | NB       |                                |
| HCM Control Delay, s       | 0        |                        | 0.8    |                            | \$ 385.7 |                                |
| HCM LOS                    | F        |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Minor Lane/Major Mvmt      | NBLn1    | EBT                    | EBR    | WBL                        | WBT      |                                |
| Capacity (veh/h)           | 129      | -                      | -      | 824                        | -        |                                |
| HCM Lane V/C Ratio         | 1.653    | -                      | -      | 0.137                      | -        |                                |
| HCM Control Delay (s)      | \$ 385.7 | -                      | -      | 10.1                       | -        |                                |
| HCM Lane LOS               | F        | -                      | -      | B                          | -        |                                |
| HCM 95th %tile Q(veh)      | 15.6     | -                      | -      | 0.5                        | -        |                                |
| Notes                      |          |                        |        |                            |          |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |        | +: Computation Not Defined |          | *: All major volume in platoon |



# HCM 6th Signalized Intersection Summary 4: Driveway #1 & Old Cornelia Highway

2030 - Traffic Signal w Widening  
AM Peak Hour

|                              |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Movement                     | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations          | ↑↑                                                                                | ↗                                                                                 | ↖                                                                                 | ↑↑                                                                                | ↖                                                                                 | ↗                                                                                 |
| Traffic Volume (veh/h)       | 557                                                                               | 90                                                                                | 80                                                                                | 979                                                                               | 265                                                                               | 233                                                                               |
| Future Volume (veh/h)        | 557                                                                               | 90                                                                                | 80                                                                                | 979                                                                               | 265                                                                               | 233                                                                               |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Ped-Bike Adj(A_pbT)          |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                | No                                                                                |                                                                                   |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              |
| Adj Flow Rate, veh/h         | 605                                                                               | 0                                                                                 | 87                                                                                | 1064                                                                              | 288                                                                               | 0                                                                                 |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Cap, veh/h                   | 1715                                                                              |                                                                                   | 555                                                                               | 2240                                                                              | 369                                                                               |                                                                                   |
| Arrive On Green              | 0.48                                                                              | 0.00                                                                              | 0.07                                                                              | 0.63                                                                              | 0.21                                                                              | 0.00                                                                              |
| Sat Flow, veh/h              | 3647                                                                              | 1585                                                                              | 1781                                                                              | 3647                                                                              | 1781                                                                              | 1585                                                                              |
| Grp Volume(v), veh/h         | 605                                                                               | 0                                                                                 | 87                                                                                | 1064                                                                              | 288                                                                               | 0                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1777                                                                              | 1585                                                                              | 1781                                                                              | 1777                                                                              | 1781                                                                              | 1585                                                                              |
| Q Serve(g_s), s              | 5.9                                                                               | 0.0                                                                               | 1.2                                                                               | 8.8                                                                               | 8.5                                                                               | 0.0                                                                               |
| Cycle Q Clear(g_c), s        | 5.9                                                                               | 0.0                                                                               | 1.2                                                                               | 8.8                                                                               | 8.5                                                                               | 0.0                                                                               |
| Prop In Lane                 |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Lane Grp Cap(c), veh/h       | 1715                                                                              |                                                                                   | 555                                                                               | 2240                                                                              | 369                                                                               |                                                                                   |
| V/C Ratio(X)                 | 0.35                                                                              |                                                                                   | 0.16                                                                              | 0.47                                                                              | 0.78                                                                              |                                                                                   |
| Avail Cap(c_a), veh/h        | 2341                                                                              |                                                                                   | 678                                                                               | 3110                                                                              | 1045                                                                              |                                                                                   |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              |
| Uniform Delay (d), s/veh     | 8.9                                                                               | 0.0                                                                               | 5.6                                                                               | 5.4                                                                               | 20.8                                                                              | 0.0                                                                               |
| Incr Delay (d2), s/veh       | 0.1                                                                               | 0.0                                                                               | 0.1                                                                               | 0.2                                                                               | 3.6                                                                               | 0.0                                                                               |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |
| %ile BackOfQ(95%),veh/ln     | 2.9                                                                               | 0.0                                                                               | 0.5                                                                               | 3.0                                                                               | 6.4                                                                               | 0.0                                                                               |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| LnGrp Delay(d),s/veh         | 9.1                                                                               | 0.0                                                                               | 5.8                                                                               | 5.6                                                                               | 24.4                                                                              | 0.0                                                                               |
| LnGrp LOS                    | A                                                                                 |                                                                                   | A                                                                                 | A                                                                                 | C                                                                                 |                                                                                   |
| Approach Vol, veh/h          | 605                                                                               | A                                                                                 |                                                                                   | 1151                                                                              | 288                                                                               | A                                                                                 |
| Approach Delay, s/veh        | 9.1                                                                               |                                                                                   |                                                                                   | 5.6                                                                               | 24.4                                                                              |                                                                                   |
| Approach LOS                 | A                                                                                 |                                                                                   |                                                                                   | A                                                                                 | C                                                                                 |                                                                                   |
| Timer - Assigned Phs         | 2                                                                                 |                                                                                   | 5                                                                                 |                                                                                   | 6                                                                                 | 8                                                                                 |
| Phs Duration (G+Y+Rc), s     | 39.4                                                                              |                                                                                   | 8.2                                                                               |                                                                                   | 31.2                                                                              | 16.0                                                                              |
| Change Period (Y+Rc), s      | 4.5                                                                               |                                                                                   | 4.5                                                                               |                                                                                   | 4.5                                                                               | 4.5                                                                               |
| Max Green Setting (Gmax), s  | 48.5                                                                              |                                                                                   | 7.5                                                                               |                                                                                   | 36.5                                                                              | 32.5                                                                              |
| Max Q Clear Time (g_c+I1), s | 10.8                                                                              |                                                                                   | 3.2                                                                               |                                                                                   | 7.9                                                                               | 10.5                                                                              |
| Green Ext Time (p_c), s      | 24.2                                                                              |                                                                                   | 0.1                                                                               |                                                                                   | 11.4                                                                              | 1.0                                                                               |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                   | 9.3                                                                               |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th LOS                  |                                                                                   |                                                                                   | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| Notes                        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑    |      |
| Traffic Vol, veh/h       | 1251 | 16   | 0    | 745  | 9    | 0    |
| Future Vol, veh/h        | 1251 | 16   | 0    | 745  | 9    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 90   | 90   | 90   | 90   | 90   | 90   |
| Heavy Vehicles, %        | 1    | 8    | 2    | 1    | 14   | 2    |
| Mvmt Flow                | 1390 | 18   | 0    | 828  | 10   | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |      |
|----------------------|--------|--------|--------|---|------|------|
| Conflicting Flow All | 0      | 0      | 1408   | 0 | 1813 | 704  |
| Stage 1              | -      | -      | -      | - | 1399 | -    |
| Stage 2              | -      | -      | -      | - | 414  | -    |
| Critical Hdwy        | -      | -      | 4.14   | - | 7.08 | 6.94 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 6.08 | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 6.08 | -    |
| Follow-up Hdwy       | -      | -      | 2.22   | - | 3.64 | 3.32 |
| Pot Cap-1 Maneuver   | -      | -      | 481    | - | 61   | 379  |
| Stage 1              | -      | -      | -      | - | 174  | -    |
| Stage 2              | -      | -      | -      | - | 602  | -    |
| Platoon blocked, %   | -      | -      | -      | - | -    | -    |
| Mov Cap-1 Maneuver   | -      | -      | 481    | - | 61   | 379  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 61   | -    |
| Stage 1              | -      | -      | -      | - | 174  | -    |
| Stage 2              | -      | -      | -      | - | 602  | -    |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 75.3 |
| HCM LOS              |    |    | F    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-----|-----|
| Capacity (veh/h)      | 61    | -   | -   | 481 | -   |
| HCM Lane V/C Ratio    | 0.164 | -   | -   | -   | -   |
| HCM Control Delay (s) | 75.3  | -   | -   | 0   | -   |
| HCM Lane LOS          | F     | -   | -   | A   | -   |
| HCM 95th %tile Q(veh) | 0.5   | -   | -   | 0   | -   |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 4.3    |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     | ↗    | ↘      | ↑↑    | ↘      |      |
| Traffic Vol, veh/h       | 1339   | 27   | 33     | 644   | 33     | 62   |
| Future Vol, veh/h        | 1339   | 27   | 33     | 644   | 33     | 62   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1455   | 29   | 36     | 700   | 36     | 67   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1484   | 0     | 1877   | 728  |
| Stage 1                  | -      | -    | -      | -     | 1455   | -    |
| Stage 2                  | -      | -    | -      | -     | 422    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 6.9  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 459    | -     | 65     | 370  |
| Stage 1                  | -      | -    | -      | -     | 184    | -    |
| Stage 2                  | -      | -    | -      | -     | 635    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 459    | -     | 60     | 370  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 60     | -    |
| Stage 1                  | -      | -    | -      | -     | 184    | -    |
| Stage 2                  | -      | -    | -      | -     | 585    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.7    |       | 92.8   |      |
| HCM LOS                  | F      |      |        |       |        |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 132    | -    | -      | 459   | -      |      |
| HCM Lane V/C Ratio       | 0.782  | -    | -      | 0.078 | -      |      |
| HCM Control Delay (s)    | 92.8   | -    | -      | 13.5  | -      |      |
| HCM Lane LOS             | F      | -    | -      | B     | -      |      |
| HCM 95th %tile Q(veh)    | 4.7    | -    | -      | 0.3   | -      |      |

# HCM 6th Signalized Intersection Summary 4: Driveway #1 & Old Cornelia Highway

2030 - Traffic Signal w Widening  
PM Peak Hour

|                              |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Movement                     | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations          | ↑↑                                                                                | ↑                                                                                 | ↓                                                                                 | ↑↑                                                                                | ↓                                                                                 | ↑                                                                                 |
| Traffic Volume (veh/h)       | 1113                                                                              | 288                                                                               | 253                                                                               | 501                                                                               | 176                                                                               | 154                                                                               |
| Future Volume (veh/h)        | 1113                                                                              | 288                                                                               | 253                                                                               | 501                                                                               | 176                                                                               | 154                                                                               |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Ped-Bike Adj(A_pbT)          |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                | No                                                                                |                                                                                   |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              |
| Adj Flow Rate, veh/h         | 1210                                                                              | 0                                                                                 | 275                                                                               | 545                                                                               | 191                                                                               | 0                                                                                 |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Cap, veh/h                   | 1945                                                                              |                                                                                   | 436                                                                               | 2552                                                                              | 251                                                                               |                                                                                   |
| Arrive On Green              | 0.55                                                                              | 0.00                                                                              | 0.10                                                                              | 0.72                                                                              | 0.14                                                                              | 0.00                                                                              |
| Sat Flow, veh/h              | 3647                                                                              | 1585                                                                              | 1781                                                                              | 3647                                                                              | 1781                                                                              | 1585                                                                              |
| Grp Volume(v), veh/h         | 1210                                                                              | 0                                                                                 | 275                                                                               | 545                                                                               | 191                                                                               | 0                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1777                                                                              | 1585                                                                              | 1781                                                                              | 1777                                                                              | 1781                                                                              | 1585                                                                              |
| Q Serve(g_s), s              | 14.9                                                                              | 0.0                                                                               | 3.7                                                                               | 3.3                                                                               | 6.6                                                                               | 0.0                                                                               |
| Cycle Q Clear(g_c), s        | 14.9                                                                              | 0.0                                                                               | 3.7                                                                               | 3.3                                                                               | 6.6                                                                               | 0.0                                                                               |
| Prop In Lane                 |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Lane Grp Cap(c), veh/h       | 1945                                                                              |                                                                                   | 436                                                                               | 2552                                                                              | 251                                                                               |                                                                                   |
| V/C Ratio(X)                 | 0.62                                                                              |                                                                                   | 0.63                                                                              | 0.21                                                                              | 0.76                                                                              |                                                                                   |
| Avail Cap(c_a), veh/h        | 2196                                                                              |                                                                                   | 773                                                                               | 3474                                                                              | 515                                                                               |                                                                                   |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              |
| Uniform Delay (d), s/veh     | 9.9                                                                               | 0.0                                                                               | 9.3                                                                               | 3.0                                                                               | 26.4                                                                              | 0.0                                                                               |
| Incr Delay (d2), s/veh       | 0.4                                                                               | 0.0                                                                               | 1.5                                                                               | 0.0                                                                               | 4.7                                                                               | 0.0                                                                               |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |
| %ile BackOfQ(95%),veh/ln     | 7.6                                                                               | 0.0                                                                               | 1.7                                                                               | 0.9                                                                               | 5.4                                                                               | 0.0                                                                               |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| LnGrp Delay(d),s/veh         | 10.4                                                                              | 0.0                                                                               | 10.8                                                                              | 3.0                                                                               | 31.1                                                                              | 0.0                                                                               |
| LnGrp LOS                    | B                                                                                 |                                                                                   | B                                                                                 | A                                                                                 | C                                                                                 |                                                                                   |
| Approach Vol, veh/h          | 1210                                                                              | A                                                                                 |                                                                                   | 820                                                                               | 191                                                                               | A                                                                                 |
| Approach Delay, s/veh        | 10.4                                                                              |                                                                                   |                                                                                   | 5.7                                                                               | 31.1                                                                              |                                                                                   |
| Approach LOS                 | B                                                                                 |                                                                                   |                                                                                   | A                                                                                 | C                                                                                 |                                                                                   |
| Timer - Assigned Phs         | 2                                                                                 |                                                                                   | 5                                                                                 |                                                                                   | 6                                                                                 | 8                                                                                 |
| Phs Duration (G+Y+Rc), s     | 50.4                                                                              |                                                                                   | 10.9                                                                              |                                                                                   | 39.5                                                                              | 13.5                                                                              |
| Change Period (Y+Rc), s      | 4.5                                                                               |                                                                                   | 4.5                                                                               |                                                                                   | 4.5                                                                               | 4.5                                                                               |
| Max Green Setting (Gmax), s  | 62.5                                                                              |                                                                                   | 18.5                                                                              |                                                                                   | 39.5                                                                              | 18.5                                                                              |
| Max Q Clear Time (g_c+I1), s | 5.3                                                                               |                                                                                   | 5.7                                                                               |                                                                                   | 16.9                                                                              | 8.6                                                                               |
| Green Ext Time (p_c), s      | 12.9                                                                              |                                                                                   | 0.7                                                                               |                                                                                   | 18.1                                                                              | 0.4                                                                               |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th Ctrl Delay           | 10.4                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.4  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↑↑   |      |      | ↑↑   | ↑↑   |      |
| Traffic Vol, veh/h       | 879  | 12   | 1    | 1137 | 17   | 4    |
| Future Vol, veh/h        | 879  | 12   | 1    | 1137 | 17   | 4    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 7    | 11   | 0    | 2    | 0    | 33   |
| Mvmt Flow                | 955  | 13   | 1    | 1236 | 18   | 4    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |      |
|----------------------|--------|--------|--------|---|------|------|
| Conflicting Flow All | 0      | 0      | 968    | 0 | 1582 | 484  |
| Stage 1              | -      | -      | -      | - | 962  | -    |
| Stage 2              | -      | -      | -      | - | 620  | -    |
| Critical Hdwy        | -      | -      | 4.1    | - | 6.8  | 7.56 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.8  | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.8  | -    |
| Follow-up Hdwy       | -      | -      | 2.2    | - | 3.5  | 3.63 |
| Pot Cap-1 Maneuver   | -      | -      | 720    | - | 101  | 454  |
| Stage 1              | -      | -      | -      | - | 336  | -    |
| Stage 2              | -      | -      | -      | - | 504  | -    |
| Platoon blocked, %   | -      | -      | -      | - | -    | -    |
| Mov Cap-1 Maneuver   | -      | -      | 720    | - | 101  | 454  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 101  | -    |
| Stage 1              | -      | -      | -      | - | 336  | -    |
| Stage 2              | -      | -      | -      | - | 502  | -    |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 42.3 |
| HCM LOS              |    |    | E    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 119   | -   | -   | 720   | -   |
| HCM Lane V/C Ratio    | 0.192 | -   | -   | 0.002 | -   |
| HCM Control Delay (s) | 42.3  | -   | -   | 10    | 0   |
| HCM Lane LOS          | E     | -   | -   | B     | A   |
| HCM 95th %tile Q(veh) | 0.7   | -   | -   | 0     | -   |



| Intersection               |          |                        |        |                            |          |                                |
|----------------------------|----------|------------------------|--------|----------------------------|----------|--------------------------------|
| Int Delay, s/veh           | 63.6     |                        |        |                            |          |                                |
| Movement                   | EBT      | EBR                    | WBL    | WBT                        | NBL      | NBR                            |
| Lane Configurations        | ↑↑       | ↗                      | ↖      | ↑↑                         | ↘        |                                |
| Traffic Vol, veh/h         | 623      | 90                     | 109    | 1277                       | 105      | 89                             |
| Future Vol, veh/h          | 623      | 90                     | 109    | 1277                       | 105      | 89                             |
| Conflicting Peds, #/hr     | 0        | 0                      | 0      | 0                          | 0        | 0                              |
| Sign Control               | Free     | Free                   | Free   | Free                       | Stop     | Stop                           |
| RT Channelized             | -        | None                   | -      | None                       | -        | None                           |
| Storage Length             | -        | 200                    | 150    | -                          | 0        | -                              |
| Veh in Median Storage, #   | 0        | -                      | -      | 0                          | 0        | -                              |
| Grade, %                   | 0        | -                      | -      | 0                          | 0        | -                              |
| Peak Hour Factor           | 83       | 83                     | 83     | 83                         | 83       | 83                             |
| Heavy Vehicles, %          | 4        | 3                      | 3      | 2                          | 9        | 10                             |
| Mvmt Flow                  | 751      | 108                    | 131    | 1539                       | 127      | 107                            |
|                            |          |                        |        |                            |          |                                |
| Major/Minor                | Major1   |                        | Major2 |                            | Minor1   |                                |
| Conflicting Flow All       | 0        | 0                      | 859    | 0                          | 1783     | 376                            |
| Stage 1                    | -        | -                      | -      | -                          | 751      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 1032     | -                              |
| Critical Hdwy              | -        | -                      | 4.16   | -                          | 6.98     | 7.1                            |
| Critical Hdwy Stg 1        | -        | -                      | -      | -                          | 5.98     | -                              |
| Critical Hdwy Stg 2        | -        | -                      | -      | -                          | 5.98     | -                              |
| Follow-up Hdwy             | -        | -                      | 2.23   | -                          | 3.59     | 3.4                            |
| Pot Cap-1 Maneuver         | -        | -                      | 772    | -                          | ~ 68     | 599                            |
| Stage 1                    | -        | -                      | -      | -                          | 409      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 289      | -                              |
| Platoon blocked, %         | -        | -                      |        | -                          |          |                                |
| Mov Cap-1 Maneuver         | -        | -                      | 772    | -                          | ~ 56     | 599                            |
| Mov Cap-2 Maneuver         | -        | -                      | -      | -                          | ~ 56     | -                              |
| Stage 1                    | -        | -                      | -      | -                          | 409      | -                              |
| Stage 2                    | -        | -                      | -      | -                          | 240      | -                              |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Approach                   | EB       |                        | WB     |                            | NB       |                                |
| HCM Control Delay, s       | 0        |                        | 0.8    |                            | \$ 746.5 |                                |
| HCM LOS                    |          |                        |        |                            | F        |                                |
|                            |          |                        |        |                            |          |                                |
|                            |          |                        |        |                            |          |                                |
| Minor Lane/Major Mvmt      | NBLn1    | EBT                    | EBR    | WBL                        | WBT      |                                |
| Capacity (veh/h)           | 96       | -                      | -      | 772                        | -        |                                |
| HCM Lane V/C Ratio         | 2.435    | -                      | -      | 0.17                       | -        |                                |
| HCM Control Delay (s)      | \$ 746.5 | -                      | -      | 10.6                       | -        |                                |
| HCM Lane LOS               | F        | -                      | -      | B                          | -        |                                |
| HCM 95th %tile Q(veh)      | 21.3     | -                      | -      | 0.6                        | -        |                                |
| Notes                      |          |                        |        |                            |          |                                |
| ~: Volume exceeds capacity |          | \$: Delay exceeds 300s |        | +: Computation Not Defined |          | *: All major volume in platoon |

# HCM 6th Signalized Intersection Summary

## 4: Driveway #1 & Old Cornelia Highway

2035 - Traffic Signal w Widening  
AM Peak Hour

|                                                                                                               | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|---------------------------------------------------------------------------------------------------------------|------|------|------|------|------|------|
| Movement                                                                                                      | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations                                                                                           | ↑↑   | ↑    | ↘    | ↑↑   | ↘    | ↑    |
| Traffic Volume (veh/h)                                                                                        | 601  | 111  | 98   | 1156 | 329  | 290  |
| Future Volume (veh/h)                                                                                         | 601  | 111  | 98   | 1156 | 329  | 290  |
| Initial Q (Qb), veh                                                                                           | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)                                                                                           |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj                                                                                              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach                                                                                         | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln                                                                                        | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h                                                                                          | 653  | 0    | 107  | 1257 | 358  | 0    |
| Peak Hour Factor                                                                                              | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %                                                                                          | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                                                                                                    | 1244 |      | 608  | 2213 | 428  |      |
| Arrive On Green                                                                                               | 0.35 | 0.00 | 0.20 | 0.62 | 0.24 | 0.00 |
| Sat Flow, veh/h                                                                                               | 3647 | 1585 | 1781 | 3647 | 1781 | 1585 |
| Grp Volume(v), veh/h                                                                                          | 653  | 0    | 107  | 1257 | 358  | 0    |
| Grp Sat Flow(s),veh/h/ln                                                                                      | 1777 | 1585 | 1781 | 1777 | 1781 | 1585 |
| Q Serve(g_s), s                                                                                               | 9.6  | 0.0  | 0.0  | 13.6 | 12.5 | 0.0  |
| Cycle Q Clear(g_c), s                                                                                         | 9.6  | 0.0  | 0.0  | 13.6 | 12.5 | 0.0  |
| Prop In Lane                                                                                                  |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h                                                                                        | 1244 |      | 608  | 2213 | 428  |      |
| V/C Ratio(X)                                                                                                  | 0.52 |      | 0.18 | 0.57 | 0.84 |      |
| Avail Cap(c_a), veh/h                                                                                         | 1975 |      | 608  | 2624 | 881  |      |
| HCM Platoon Ratio                                                                                             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)                                                                                            | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh                                                                                      | 17.0 | 0.0  | 14.8 | 7.2  | 23.7 | 0.0  |
| Incr Delay (d2), s/veh                                                                                        | 0.3  | 0.0  | 0.1  | 0.2  | 4.4  | 0.0  |
| Initial Q Delay(d3),s/veh                                                                                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln                                                                                      | 6.1  | 0.0  | 1.8  | 5.9  | 9.3  | 0.0  |
| Unsig. Movement Delay, s/veh                                                                                  |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh                                                                                          | 17.3 | 0.0  | 14.9 | 7.5  | 28.1 | 0.0  |
| LnGrp LOS                                                                                                     | B    |      | B    | A    | C    |      |
| Approach Vol, veh/h                                                                                           | 653  | A    |      | 1364 | 358  | A    |
| Approach Delay, s/veh                                                                                         | 17.3 |      |      | 8.1  | 28.1 |      |
| Approach LOS                                                                                                  | B    |      |      | A    | C    |      |
| Timer - Assigned Phs                                                                                          |      | 2    |      |      | 5    | 6    |
| Phs Duration (G+Y+Rc), s                                                                                      |      | 45.4 |      |      | 17.9 | 27.5 |
| Change Period (Y+Rc), s                                                                                       |      | 4.5  |      |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s                                                                                   |      | 48.5 |      |      | 7.5  | 36.5 |
| Max Q Clear Time (g_c+I1), s                                                                                  |      | 15.6 |      |      | 2.0  | 11.6 |
| Green Ext Time (p_c), s                                                                                       |      | 25.3 |      |      | 0.1  | 11.4 |
|                                                                                                               |      |      |      |      |      | 1.2  |
| Intersection Summary                                                                                          |      |      |      |      |      |      |
| HCM 6th Ctrl Delay                                                                                            |      |      | 13.6 |      |      |      |
| HCM 6th LOS                                                                                                   |      |      | B    |      |      |      |
| Notes                                                                                                         |      |      |      |      |      |      |
| Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay. |      |      |      |      |      |      |

| Intersection             |        |      |        |      |        |      |
|--------------------------|--------|------|--------|------|--------|------|
| Int Delay, s/veh         | 0.5    |      |        |      |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT  | NBL    | NBR  |
| Lane Configurations      | ↑↑     |      |        | ↑↑   | ↑↑     |      |
| Traffic Vol, veh/h       | 1375   | 17   | 0      | 851  | 10     | 0    |
| Future Vol, veh/h        | 1375   | 17   | 0      | 851  | 10     | 0    |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0    | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free | Stop   | Stop |
| RT Channelized           | -      | None | -      | None | -      | None |
| Storage Length           | -      | -    | -      | -    | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0    | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0    | 0      | -    |
| Peak Hour Factor         | 90     | 90   | 90     | 90   | 90     | 90   |
| Heavy Vehicles, %        | 1      | 8    | 2      | 1    | 14     | 2    |
| Mvmt Flow                | 1528   | 19   | 0      | 946  | 11     | 0    |
|                          |        |      |        |      |        |      |
| Major/Minor              | Major1 |      | Major2 |      | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1547   | 0    | 2011   | 774  |
| Stage 1                  | -      | -    | -      | -    | 1538   | -    |
| Stage 2                  | -      | -    | -      | -    | 473    | -    |
| Critical Hdwy            | -      | -    | 4.14   | -    | 7.08   | 6.94 |
| Critical Hdwy Stg 1      | -      | -    | -      | -    | 6.08   | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -    | 6.08   | -    |
| Follow-up Hdwy           | -      | -    | 2.22   | -    | 3.64   | 3.32 |
| Pot Cap-1 Maneuver       | -      | -    | 425    | -    | 44     | 341  |
| Stage 1                  | -      | -    | -      | -    | 145    | -    |
| Stage 2                  | -      | -    | -      | -    | 560    | -    |
| Platoon blocked, %       | -      | -    |        | -    |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 425    | -    | 44     | 341  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -    | 44     | -    |
| Stage 1                  | -      | -    | -      | -    | 145    | -    |
| Stage 2                  | -      | -    | -      | -    | 560    | -    |
|                          |        |      |        |      |        |      |
|                          |        |      |        |      |        |      |
| Approach                 | EB     |      | WB     |      | NB     |      |
| HCM Control Delay, s     | 0      |      | 0      |      | 112.5  |      |
| HCM LOS                  | F      |      |        |      |        |      |
|                          |        |      |        |      |        |      |
|                          |        |      |        |      |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL  | WBT    |      |
| Capacity (veh/h)         | 44     | -    | -      | 425  | -      |      |
| HCM Lane V/C Ratio       | 0.253  | -    | -      | -    | -      |      |
| HCM Control Delay (s)    | 112.5  | -    | -      | 0    | -      |      |
| HCM Lane LOS             | F      | -    | -      | A    | -      |      |
| HCM 95th %tile Q(veh)    | 0.8    | -    | -      | 0    | -      |      |

| Intersection             |        |      |        |       |        |      |
|--------------------------|--------|------|--------|-------|--------|------|
| Int Delay, s/veh         | 11.2   |      |        |       |        |      |
| Movement                 | EBT    | EBR  | WBL    | WBT   | NBL    | NBR  |
| Lane Configurations      | ↑↑     | ↑    | ↑      | ↑↑    | ↑      | ↑    |
| Traffic Vol, veh/h       | 1488   | 30   | 41     | 719   | 36     | 76   |
| Future Vol, veh/h        | 1488   | 30   | 41     | 719   | 36     | 76   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    |
| Sign Control             | Free   | Free | Free   | Free  | Stop   | Stop |
| RT Channelized           | -      | None | -      | None  | -      | None |
| Storage Length           | -      | 200  | 150    | -     | 0      | -    |
| Veh in Median Storage, # | 0      | -    | -      | 0     | 0      | -    |
| Grade, %                 | 0      | -    | -      | 0     | 0      | -    |
| Peak Hour Factor         | 92     | 92   | 92     | 92    | 92     | 92   |
| Heavy Vehicles, %        | 9      | 0    | 0      | 2     | 0      | 0    |
| Mvmt Flow                | 1617   | 33   | 45     | 782   | 39     | 83   |
|                          |        |      |        |       |        |      |
| Major/Minor              | Major1 |      | Major2 |       | Minor1 |      |
| Conflicting Flow All     | 0      | 0    | 1650   | 0     | 2098   | 809  |
| Stage 1                  | -      | -    | -      | -     | 1617   | -    |
| Stage 2                  | -      | -    | -      | -     | 481    | -    |
| Critical Hdwy            | -      | -    | 4.1    | -     | 6.8    | 6.9  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.8    | -    |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.8    | -    |
| Follow-up Hdwy           | -      | -    | 2.2    | -     | 3.5    | 3.3  |
| Pot Cap-1 Maneuver       | -      | -    | 397    | -     | 46     | 328  |
| Stage 1                  | -      | -    | -      | -     | 151    | -    |
| Stage 2                  | -      | -    | -      | -     | 593    | -    |
| Platoon blocked, %       | -      | -    |        | -     |        |      |
| Mov Cap-1 Maneuver       | -      | -    | 397    | -     | 41     | 328  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 41     | -    |
| Stage 1                  | -      | -    | -      | -     | 151    | -    |
| Stage 2                  | -      | -    | -      | -     | 526    | -    |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Approach                 | EB     |      | WB     |       | NB     |      |
| HCM Control Delay, s     | 0      |      | 0.8    |       | 233.4  |      |
| HCM LOS                  | F      |      |        |       |        |      |
|                          |        |      |        |       |        |      |
|                          |        |      |        |       |        |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBT  | EBR    | WBL   | WBT    |      |
| Capacity (veh/h)         | 101    | -    | -      | 397   | -      |      |
| HCM Lane V/C Ratio       | 1.205  | -    | -      | 0.112 | -      |      |
| HCM Control Delay (s)    | 233.4  | -    | -      | 15.2  | -      |      |
| HCM Lane LOS             | F      | -    | -      | C     | -      |      |
| HCM 95th %tile Q(veh)    | 8.2    | -    | -      | 0.4   | -      |      |

# HCM 6th Signalized Intersection Summary

## 4: Driveway #1 & Old Cornelia Highway

2035 - Traffic Signal w Widening  
PM Peak Hour

|                              |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Movement                     | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations          | ↑↑                                                                                | ↗                                                                                 | ↖                                                                                 | ↑↑                                                                                | ↖                                                                                 | ↗                                                                                 |
| Traffic Volume (veh/h)       | 1201                                                                              | 363                                                                               | 320                                                                               | 541                                                                               | 218                                                                               | 192                                                                               |
| Future Volume (veh/h)        | 1201                                                                              | 363                                                                               | 320                                                                               | 541                                                                               | 218                                                                               | 192                                                                               |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Ped-Bike Adj(A_pbT)          |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                | No                                                                                |                                                                                   |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              |
| Adj Flow Rate, veh/h         | 1305                                                                              | 0                                                                                 | 348                                                                               | 588                                                                               | 237                                                                               | 0                                                                                 |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Cap, veh/h                   | 1864                                                                              |                                                                                   | 422                                                                               | 2519                                                                              | 291                                                                               |                                                                                   |
| Arrive On Green              | 0.52                                                                              | 0.00                                                                              | 0.12                                                                              | 0.71                                                                              | 0.16                                                                              | 0.00                                                                              |
| Sat Flow, veh/h              | 3647                                                                              | 1585                                                                              | 1781                                                                              | 3647                                                                              | 1781                                                                              | 1585                                                                              |
| Grp Volume(v), veh/h         | 1305                                                                              | 0                                                                                 | 348                                                                               | 588                                                                               | 237                                                                               | 0                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1777                                                                              | 1585                                                                              | 1781                                                                              | 1777                                                                              | 1781                                                                              | 1585                                                                              |
| Q Serve(g_s), s              | 19.4                                                                              | 0.0                                                                               | 5.6                                                                               | 4.1                                                                               | 9.0                                                                               | 0.0                                                                               |
| Cycle Q Clear(g_c), s        | 19.4                                                                              | 0.0                                                                               | 5.6                                                                               | 4.1                                                                               | 9.0                                                                               | 0.0                                                                               |
| Prop In Lane                 |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Lane Grp Cap(c), veh/h       | 1864                                                                              |                                                                                   | 422                                                                               | 2519                                                                              | 291                                                                               |                                                                                   |
| V/C Ratio(X)                 | 0.70                                                                              |                                                                                   | 0.83                                                                              | 0.23                                                                              | 0.81                                                                              |                                                                                   |
| Avail Cap(c_a), veh/h        | 1992                                                                              |                                                                                   | 675                                                                               | 3152                                                                              | 468                                                                               |                                                                                   |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              |
| Uniform Delay (d), s/veh     | 12.6                                                                              | 0.0                                                                               | 12.8                                                                              | 3.6                                                                               | 28.4                                                                              | 0.0                                                                               |
| Incr Delay (d2), s/veh       | 1.0                                                                               | 0.0                                                                               | 4.6                                                                               | 0.0                                                                               | 5.7                                                                               | 0.0                                                                               |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |
| %ile BackOfQ(95%),veh/ln     | 10.3                                                                              | 0.0                                                                               | 5.5                                                                               | 1.4                                                                               | 7.5                                                                               | 0.0                                                                               |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| LnGrp Delay(d),s/veh         | 13.6                                                                              | 0.0                                                                               | 17.4                                                                              | 3.6                                                                               | 34.2                                                                              | 0.0                                                                               |
| LnGrp LOS                    | B                                                                                 |                                                                                   | B                                                                                 | A                                                                                 | C                                                                                 |                                                                                   |
| Approach Vol, veh/h          | 1305                                                                              | A                                                                                 |                                                                                   | 936                                                                               | 237                                                                               | A                                                                                 |
| Approach Delay, s/veh        | 13.6                                                                              |                                                                                   |                                                                                   | 8.7                                                                               | 34.2                                                                              |                                                                                   |
| Approach LOS                 | B                                                                                 |                                                                                   |                                                                                   | A                                                                                 | C                                                                                 |                                                                                   |
| Timer - Assigned Phs         | 2                                                                                 |                                                                                   | 5                                                                                 |                                                                                   | 6                                                                                 | 8                                                                                 |
| Phs Duration (G+Y+Rc), s     | 54.4                                                                              |                                                                                   | 13.0                                                                              |                                                                                   | 41.5                                                                              | 16.0                                                                              |
| Change Period (Y+Rc), s      | 4.5                                                                               |                                                                                   | 4.5                                                                               |                                                                                   | 4.5                                                                               | 4.5                                                                               |
| Max Green Setting (Gmax), s  | 62.5                                                                              |                                                                                   | 18.5                                                                              |                                                                                   | 39.5                                                                              | 18.5                                                                              |
| Max Q Clear Time (g_c+I1), s | 6.1                                                                               |                                                                                   | 7.6                                                                               |                                                                                   | 21.4                                                                              | 11.0                                                                              |
| Green Ext Time (p_c), s      | 14.2                                                                              |                                                                                   | 0.9                                                                               |                                                                                   | 15.5                                                                              | 0.5                                                                               |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                   | 13.7                                                                              |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th LOS                  |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| Notes                        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

### **3. ROUNDABOUT**



## **SIGNLE LANE ROUNDABOUT**

# MOVEMENT SUMMARY

 **Site: 101 [2025 AM (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 210           | 2.0  | 228           | 2.0  | 0.551     | 12.9        | LOS B            | 5.3               | 134.8     | 0.84      | 0.89                | 1.10             | 30.5        |
| 18                           | R2   | 185           | 2.0  | 201           | 2.0  | 0.551     | 12.9        | LOS B            | 5.3               | 134.8     | 0.84      | 0.89                | 1.10             | 29.5        |
| Approach                     |      | 395           | 2.0  | 429           | 2.0  | 0.551     | 12.9        | LOS B            | 5.3               | 134.8     | 0.84      | 0.89                | 1.10             | 30.0        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 1                            | L2   | 62            | 2.0  | 67            | 2.0  | 1.034     | 57.3        | LOS F            | 65.7              | 1668.5    | 1.00      | 1.88                | 3.10             | 19.7        |
| 6                            | T1   | 911           | 2.0  | 990           | 2.0  | 1.034     | 57.3        | LOS F            | 65.7              | 1668.5    | 1.00      | 1.88                | 3.10             | 19.7        |
| Approach                     |      | 973           | 2.0  | 1058          | 2.0  | 1.034     | 57.3        | LOS F            | 65.7              | 1668.5    | 1.00      | 1.88                | 3.10             | 19.7        |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 2                            | T1   | 518           | 2.0  | 563           | 2.0  | 0.529     | 8.9         | LOS A            | 5.4               | 137.4     | 0.42      | 0.20                | 0.42             | 33.8        |
| 12                           | R2   | 70            | 2.0  | 76            | 2.0  | 0.529     | 8.9         | LOS A            | 5.4               | 137.4     | 0.42      | 0.20                | 0.42             | 32.7        |
| Approach                     |      | 588           | 2.0  | 639           | 2.0  | 0.529     | 8.9         | LOS A            | 5.4               | 137.4     | 0.42      | 0.20                | 0.42             | 33.7        |
| All Vehicles                 |      | 1956          | 2.0  | 2126          | 2.0  | 1.034     | 33.8        | LOS D            | 65.7              | 1668.5    | 0.79      | 1.18                | 1.89             | 24.4        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2025 PM (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 141           | 2.0  | 153           | 2.0  | 0.634     | 24.0        | LOS C            | 7.0               | 177.1     | 1.00      | 1.19                | 1.52             | 26.6        |
| 18                           | R2   | 124           | 2.0  | 135           | 2.0  | 0.634     | 24.0        | LOS C            | 7.0               | 177.1     | 1.00      | 1.19                | 1.52             | 25.8        |
| Approach                     |      | 265           | 2.0  | 288           | 2.0  | 0.634     | 24.0        | LOS C            | 7.0               | 177.1     | 1.00      | 1.19                | 1.52             | 26.2        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 1                            | L2   | 208           | 2.0  | 226           | 2.0  | 0.667     | 12.9        | LOS B            | 7.5               | 191.0     | 0.72      | 0.47                | 0.72             | 31.2        |
| 6                            | T1   | 466           | 2.0  | 507           | 2.0  | 0.667     | 12.9        | LOS B            | 7.5               | 191.0     | 0.72      | 0.47                | 0.72             | 31.1        |
| Approach                     |      | 674           | 2.0  | 733           | 2.0  | 0.667     | 12.9        | LOS B            | 7.5               | 191.0     | 0.72      | 0.47                | 0.72             | 31.2        |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 2                            | T1   | 1035          | 2.0  | 1125          | 2.0  | 1.334     | 171.5       | LOS F            | 153.3             | 3893.3    | 1.00      | 3.41                | 5.97             | 9.9         |
| 12                           | R2   | 236           | 2.0  | 257           | 2.0  | 1.334     | 171.5       | LOS F            | 153.3             | 3893.3    | 1.00      | 3.41                | 5.97             | 9.8         |
| Approach                     |      | 1271          | 2.0  | 1382          | 2.0  | 1.334     | 171.5       | LOS F            | 153.3             | 3893.3    | 1.00      | 3.41                | 5.97             | 9.9         |
| All Vehicles                 |      | 2210          | 2.0  | 2402          | 2.0  | 1.334     | 105.4       | LOS F            | 153.3             | 3893.3    | 0.91      | 2.25                | 3.83             | 13.8        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2030 AM (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 265           | 2.0    | 288           | 2.0    | 0.710     | 19.0        | LOS C            | 10.1              | 255.6     | 0.95      | 1.18                | 1.59             | 28.2        |
| 18                           | R2   | 233           | 2.0    | 253           | 2.0    | 0.710     | 19.0        | LOS C            | 10.1              | 255.6     | 0.95      | 1.18                | 1.59             | 27.4        |
| Approach                     |      | 498           | 2.0    | 541           | 2.0    | 0.710     | 19.0        | LOS C            | 10.1              | 255.6     | 0.95      | 1.18                | 1.59             | 27.8        |
| East: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1                            | L2   | 80            | 2.0    | 87            | 2.0    | 1.175     | 107.1       | LOS F            | 95.7              | 2430.8    | 1.00      | 2.76                | 4.90             | 13.8        |
| 6                            | T1   | 979           | 2.0    | 1064          | 2.0    | 1.175     | 107.1       | LOS F            | 95.7              | 2430.8    | 1.00      | 2.76                | 4.90             | 13.8        |
| Approach                     |      | 1059          | 2.0    | 1151          | 2.0    | 1.175     | 107.1       | LOS F            | 95.7              | 2430.8    | 1.00      | 2.76                | 4.90             | 13.8        |
| West: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                            | T1   | 557           | 2.0    | 605           | 2.0    | 0.577     | 9.8         | LOS A            | 6.3               | 160.2     | 0.48      | 0.24                | 0.48             | 33.4        |
| 12                           | R2   | 90            | 2.0    | 98            | 2.0    | 0.577     | 9.8         | LOS A            | 6.3               | 160.2     | 0.48      | 0.24                | 0.48             | 32.3        |
| Approach                     |      | 647           | 2.0    | 703           | 2.0    | 0.577     | 9.8         | LOS A            | 6.3               | 160.2     | 0.48      | 0.24                | 0.48             | 33.2        |
| All Vehicles                 |      | 2204          | 2.0    | 2396          | 2.0    | 1.175     | 58.6        | LOS F            | 95.7              | 2430.8    | 0.84      | 1.66                | 2.85             | 19.3        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2030 PM (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 176           | 2.0    | 191           | 2.0    | 0.702     | 25.4        | LOS D            | 8.9               | 225.7     | 1.00      | 1.25                | 1.67             | 26.2        |
| 18                           | R2   | 154           | 2.0    | 167           | 2.0    | 0.702     | 25.4        | LOS D            | 8.9               | 225.7     | 1.00      | 1.25                | 1.67             | 25.4        |
| Approach                     |      | 330           | 2.0    | 359           | 2.0    | 0.702     | 25.4        | LOS D            | 8.9               | 225.7     | 1.00      | 1.25                | 1.67             | 25.8        |
| East: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1                            | L2   | 253           | 2.0    | 275           | 2.0    | 0.764     | 17.1        | LOS C            | 15.9              | 402.9     | 0.88      | 0.79                | 1.17             | 29.5        |
| 6                            | T1   | 501           | 2.0    | 545           | 2.0    | 0.764     | 17.1        | LOS C            | 15.9              | 402.9     | 0.88      | 0.79                | 1.17             | 29.4        |
| Approach                     |      | 754           | 2.0    | 820           | 2.0    | 0.764     | 17.1        | LOS C            | 15.9              | 402.9     | 0.88      | 0.79                | 1.17             | 29.4        |
| West: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                            | T1   | 1113          | 2.0    | 1210          | 2.0    | 1.531     | 257.7       | LOS F            | 203.8             | 5177.6    | 1.00      | 4.39                | 8.10             | 7.2         |
| 12                           | R2   | 288           | 2.0    | 313           | 2.0    | 1.531     | 257.7       | LOS F            | 203.8             | 5177.6    | 1.00      | 4.39                | 8.10             | 7.1         |
| Approach                     |      | 1401          | 2.0    | 1523          | 2.0    | 1.531     | 257.7       | LOS F            | 203.8             | 5177.6    | 1.00      | 4.39                | 8.10             | 7.2         |
| All Vehicles                 |      | 2485          | 2.0    | 2701          | 2.0    | 1.531     | 153.8       | LOS F            | 203.8             | 5177.6    | 0.96      | 2.88                | 5.15             | 10.7        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2035 AM (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 329           | 2.0    | 358           | 2.0    | 0.896     | 35.7        | LOS E            | 21.8              | 553.9     | 1.00      | 1.61                | 2.53             | 23.4        |
| 18                           | R2   | 290           | 2.0    | 315           | 2.0    | 0.896     | 35.7        | LOS E            | 21.8              | 553.9     | 1.00      | 1.61                | 2.53             | 22.8        |
| Approach                     |      | 619           | 2.0    | 673           | 2.0    | 0.896     | 35.7        | LOS E            | 21.8              | 553.9     | 1.00      | 1.61                | 2.53             | 23.1        |
| East: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1                            | L2   | 98            | 2.0    | 107           | 2.0    | 1.328     | 170.6       | LOS F            | 131.8             | 3348.7    | 1.00      | 3.68                | 6.97             | 10.0        |
| 6                            | T1   | 1057          | 2.0    | 1149          | 2.0    | 1.328     | 170.6       | LOS F            | 131.8             | 3348.7    | 1.00      | 3.68                | 6.97             | 10.0        |
| Approach                     |      | 1155          | 2.0    | 1255          | 2.0    | 1.328     | 170.6       | LOS F            | 131.8             | 3348.7    | 1.00      | 3.68                | 6.97             | 10.0        |
| West: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                            | T1   | 601           | 2.0    | 653           | 2.0    | 0.621     | 10.6        | LOS B            | 7.3               | 184.7     | 0.52      | 0.27                | 0.52             | 33.0        |
| 12                           | R2   | 111           | 2.0    | 121           | 2.0    | 0.621     | 10.6        | LOS B            | 7.3               | 184.7     | 0.52      | 0.27                | 0.52             | 31.9        |
| Approach                     |      | 712           | 2.0    | 774           | 2.0    | 0.621     | 10.6        | LOS B            | 7.3               | 184.7     | 0.52      | 0.27                | 0.52             | 32.8        |
| All Vehicles                 |      | 2486          | 2.0    | 2702          | 2.0    | 1.328     | 91.2        | LOS F            | 131.8             | 3348.7    | 0.86      | 2.19                | 4.02             | 15.1        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2035 PM (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 218           | 2.0    | 237           | 2.0    | 0.756     | 26.3        | LOS D            | 11.4              | 288.6     | 1.00      | 1.32                | 1.82             | 25.9        |
| 18                           | R2   | 192           | 2.0    | 209           | 2.0    | 0.756     | 26.3        | LOS D            | 11.4              | 288.6     | 1.00      | 1.32                | 1.82             | 25.2        |
| Approach                     |      | 410           | 2.0    | 446           | 2.0    | 0.756     | 26.3        | LOS D            | 11.4              | 288.6     | 1.00      | 1.32                | 1.82             | 25.5        |
| East: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1                            | L2   | 320           | 2.0    | 348           | 2.0    | 0.882     | 26.6        | LOS D            | 31.8              | 806.7     | 1.00      | 1.25                | 1.92             | 26.3        |
| 6                            | T1   | 541           | 2.0    | 588           | 2.0    | 0.882     | 26.6        | LOS D            | 31.8              | 806.7     | 1.00      | 1.25                | 1.92             | 26.2        |
| Approach                     |      | 861           | 2.0    | 936           | 2.0    | 0.882     | 26.6        | LOS D            | 31.8              | 806.7     | 1.00      | 1.25                | 1.92             | 26.2        |
| West: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                            | T1   | 1201          | 2.0    | 1305          | 2.0    | 1.791     | 373.0       | LOS F            | 267.8             | 6802.9    | 1.00      | 5.44                | 10.63            | 5.3         |
| 12                           | R2   | 363           | 2.0    | 395           | 2.0    | 1.791     | 373.0       | LOS F            | 267.8             | 6802.9    | 1.00      | 5.44                | 10.63            | 5.2         |
| Approach                     |      | 1564          | 2.0    | 1700          | 2.0    | 1.791     | 373.0       | LOS F            | 267.8             | 6802.9    | 1.00      | 5.44                | 10.63            | 5.3         |
| All Vehicles                 |      | 2835          | 2.0    | 3082          | 2.0    | 1.791     | 217.7       | LOS F            | 267.8             | 6802.9    | 1.00      | 3.57                | 6.71             | 8.2         |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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## MULTILANE ROUNDABOUT

# MOVEMENT SUMMARY

 **Site: 101 [2025 AM (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 210           | 2.0    | 228           | 2.0    | 0.224     | 5.7         | LOS A            | 1.0               | 24.2      | 0.50      | 0.44                | 0.50             | 32.7        |
| 18                           | R2   | 185           | 2.0    | 201           | 2.0    | 0.219     | 6.1         | LOS A            | 0.9               | 23.2      | 0.51      | 0.46                | 0.51             | 33.8        |
| Approach                     |      | 395           | 2.0    | 429           | 2.0    | 0.224     | 5.9         | LOS A            | 1.0               | 24.2      | 0.51      | 0.45                | 0.51             | 33.2        |
| East: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1                            | L2   | 62            | 2.0    | 67            | 2.0    | 0.463     | 8.3         | LOS A            | 3.1               | 78.3      | 0.51      | 0.37                | 0.51             | 33.9        |
| 6                            | T1   | 911           | 2.0    | 990           | 2.0    | 0.463     | 8.2         | LOS A            | 3.1               | 78.9      | 0.51      | 0.36                | 0.51             | 34.0        |
| Approach                     |      | 973           | 2.0    | 1058          | 2.0    | 0.463     | 8.2         | LOS A            | 3.1               | 78.9      | 0.51      | 0.36                | 0.51             | 34.0        |
| West: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                            | T1   | 518           | 2.0    | 563           | 2.0    | 0.247     | 4.9         | LOS A            | 1.3               | 34.3      | 0.22      | 0.10                | 0.22             | 35.9        |
| 12                           | R2   | 70            | 2.0    | 76            | 2.0    | 0.247     | 4.9         | LOS A            | 1.3               | 34.3      | 0.22      | 0.10                | 0.22             | 34.6        |
| Approach                     |      | 588           | 2.0    | 639           | 2.0    | 0.247     | 4.9         | LOS A            | 1.3               | 34.3      | 0.22      | 0.10                | 0.22             | 35.7        |
| All Vehicles                 |      | 1956          | 2.0    | 2126          | 2.0    | 0.463     | 6.7         | LOS A            | 3.1               | 78.9      | 0.42      | 0.30                | 0.42             | 34.3        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2025 PM (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 141           | 2.0  | 153           | 2.0  | 0.214     | 7.5         | LOS A            | 1.0               | 26.5      | 0.71      | 0.71                | 0.71             | 31.9        |
| 18                           | R2   | 124           | 2.0  | 135           | 2.0  | 0.226     | 9.0         | LOS A            | 1.0               | 26.5      | 0.71      | 0.71                | 0.71             | 32.4        |
| Approach                     |      | 265           | 2.0  | 288           | 2.0  | 0.226     | 8.2         | LOS A            | 1.0               | 26.5      | 0.71      | 0.71                | 0.71             | 32.1        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 1                            | L2   | 208           | 2.0  | 226           | 2.0  | 0.307     | 6.0         | LOS A            | 1.8               | 46.5      | 0.38      | 0.23                | 0.38             | 33.6        |
| 6                            | T1   | 466           | 2.0  | 507           | 2.0  | 0.307     | 5.9         | LOS A            | 1.8               | 46.8      | 0.38      | 0.23                | 0.38             | 34.8        |
| Approach                     |      | 674           | 2.0  | 733           | 2.0  | 0.307     | 5.9         | LOS A            | 1.8               | 46.8      | 0.38      | 0.23                | 0.38             | 34.4        |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 2                            | T1   | 1035          | 2.0  | 1125          | 2.0  | 0.605     | 10.9        | LOS B            | 4.8               | 122.1     | 0.59      | 0.43                | 0.59             | 32.8        |
| 12                           | R2   | 236           | 2.0  | 257           | 2.0  | 0.605     | 10.7        | LOS B            | 4.7               | 118.7     | 0.58      | 0.42                | 0.58             | 31.8        |
| Approach                     |      | 1271          | 2.0  | 1382          | 2.0  | 0.605     | 10.9        | LOS B            | 4.8               | 122.1     | 0.59      | 0.43                | 0.59             | 32.6        |
| All Vehicles                 |      | 2210          | 2.0  | 2402          | 2.0  | 0.605     | 9.0         | LOS A            | 4.8               | 122.1     | 0.54      | 0.40                | 0.54             | 33.1        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2030 AM (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
|                              |      |               |        |               |        | v/c       | sec         |                  |                   |           |           |                     |                  | mph         |
| South: Driveway #1           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 265           | 2.0    | 288           | 2.0    | 0.283     | 6.4         | LOS A            | 1.3               | 32.3      | 0.54      | 0.49                | 0.54             | 32.4        |
| 18                           | R2   | 233           | 2.0    | 253           | 2.0    | 0.281     | 7.0         | LOS A            | 1.2               | 31.3      | 0.55      | 0.52                | 0.55             | 33.4        |
| Approach                     |      | 498           | 2.0    | 541           | 2.0    | 0.283     | 6.6         | LOS A            | 1.3               | 32.3      | 0.54      | 0.50                | 0.54             | 32.8        |
| East: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1                            | L2   | 80            | 2.0    | 87            | 2.0    | 0.523     | 9.6         | LOS A            | 3.7               | 93.7      | 0.60      | 0.47                | 0.60             | 33.2        |
| 6                            | T1   | 979           | 2.0    | 1064          | 2.0    | 0.523     | 9.4         | LOS A            | 3.7               | 95.2      | 0.60      | 0.46                | 0.60             | 33.3        |
| Approach                     |      | 1059          | 2.0    | 1151          | 2.0    | 0.523     | 9.4         | LOS A            | 3.7               | 95.2      | 0.60      | 0.46                | 0.60             | 33.3        |
| West: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                            | T1   | 557           | 2.0    | 605           | 2.0    | 0.273     | 5.2         | LOS A            | 1.6               | 40.0      | 0.27      | 0.13                | 0.27             | 35.7        |
| 12                           | R2   | 90            | 2.0    | 98            | 2.0    | 0.273     | 5.1         | LOS A            | 1.6               | 40.0      | 0.27      | 0.13                | 0.27             | 34.4        |
| Approach                     |      | 647           | 2.0    | 703           | 2.0    | 0.273     | 5.2         | LOS A            | 1.6               | 40.0      | 0.27      | 0.13                | 0.27             | 35.5        |
| All Vehicles                 |      | 2204          | 2.0    | 2396          | 2.0    | 0.523     | 7.6         | LOS A            | 3.7               | 95.2      | 0.49      | 0.37                | 0.49             | 33.8        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2030 PM (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 176           | 2.0  | 191           | 2.0  | 0.287     | 9.0         | LOS A            | 1.5               | 38.4      | 0.77      | 0.77                | 0.77             | 31.3        |
| 18                           | R2   | 154           | 2.0  | 167           | 2.0  | 0.311     | 11.3        | LOS B            | 1.6               | 39.6      | 0.77      | 0.78                | 0.80             | 31.3        |
| Approach                     |      | 330           | 2.0  | 359           | 2.0  | 0.311     | 10.1        | LOS B            | 1.6               | 39.6      | 0.77      | 0.78                | 0.79             | 31.3        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 1                            | L2   | 253           | 2.0  | 275           | 2.0  | 0.351     | 6.6         | LOS A            | 2.2               | 55.9      | 0.45      | 0.29                | 0.45             | 33.1        |
| 6                            | T1   | 501           | 2.0  | 545           | 2.0  | 0.351     | 6.4         | LOS A            | 2.2               | 56.6      | 0.44      | 0.29                | 0.44             | 34.6        |
| Approach                     |      | 754           | 2.0  | 820           | 2.0  | 0.351     | 6.5         | LOS A            | 2.2               | 56.6      | 0.44      | 0.29                | 0.44             | 34.1        |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 2                            | T1   | 1113          | 2.0  | 1210          | 2.0  | 0.684     | 13.4        | LOS B            | 9.6               | 244.6     | 0.71      | 0.69                | 0.98             | 31.7        |
| 12                           | R2   | 288           | 2.0  | 313           | 2.0  | 0.684     | 13.0        | LOS B            | 9.5               | 241.0     | 0.70      | 0.67                | 0.95             | 30.7        |
| Approach                     |      | 1401          | 2.0  | 1523          | 2.0  | 0.684     | 13.3        | LOS B            | 9.6               | 244.6     | 0.70      | 0.69                | 0.97             | 31.5        |
| All Vehicles                 |      | 2485          | 2.0  | 2701          | 2.0  | 0.684     | 10.8        | LOS B            | 9.6               | 244.6     | 0.63      | 0.58                | 0.79             | 32.2        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2035 AM (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 329           | 2.0    | 358           | 2.0    | 0.345     | 7.0         | LOS A            | 1.7               | 42.0      | 0.58      | 0.54                | 0.58             | 32.1        |
| 18                           | R2   | 290           | 2.0    | 315           | 2.0    | 0.352     | 8.0         | LOS A            | 1.6               | 41.7      | 0.60      | 0.58                | 0.60             | 32.9        |
| Approach                     |      | 619           | 2.0    | 673           | 2.0    | 0.352     | 7.5         | LOS A            | 1.7               | 42.0      | 0.59      | 0.56                | 0.59             | 32.4        |
| East: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1                            | L2   | 98            | 2.0    | 107           | 2.0    | 0.588     | 11.4        | LOS B            | 6.0               | 152.8     | 0.71      | 0.67                | 0.89             | 32.3        |
| 6                            | T1   | 1057          | 2.0    | 1149          | 2.0    | 0.588     | 11.0        | LOS B            | 6.0               | 152.8     | 0.70      | 0.65                | 0.86             | 32.6        |
| Approach                     |      | 1155          | 2.0    | 1255          | 2.0    | 0.588     | 11.0        | LOS B            | 6.0               | 152.8     | 0.70      | 0.65                | 0.86             | 32.6        |
| West: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                            | T1   | 601           | 2.0    | 653           | 2.0    | 0.300     | 5.5         | LOS A            | 1.8               | 46.5      | 0.31      | 0.16                | 0.31             | 35.5        |
| 12                           | R2   | 111           | 2.0    | 121           | 2.0    | 0.300     | 5.4         | LOS A            | 1.8               | 46.5      | 0.31      | 0.16                | 0.31             | 34.3        |
| Approach                     |      | 712           | 2.0    | 774           | 2.0    | 0.300     | 5.5         | LOS A            | 1.8               | 46.5      | 0.31      | 0.16                | 0.31             | 35.3        |
| All Vehicles                 |      | 2486          | 2.0    | 2702          | 2.0    | 0.588     | 8.6         | LOS A            | 6.0               | 152.8     | 0.56      | 0.49                | 0.64             | 33.3        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Multilane (3 drives)\Four lane.sip9

# MOVEMENT SUMMARY

 **Site: 101 [2035 PM (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 218           | 2.0  | 237           | 2.0  | 0.394     | 11.9        | LOS B            | 2.5               | 64.2      | 0.86      | 0.91                | 1.00             | 30.1        |
| 18                           | R2   | 192           | 2.0  | 209           | 2.0  | 0.446     | 16.0        | LOS C            | 2.8               | 70.9      | 0.86      | 0.94                | 1.12             | 29.4        |
| Approach                     |      | 410           | 2.0  | 446           | 2.0  | 0.446     | 13.8        | LOS B            | 2.8               | 70.9      | 0.86      | 0.92                | 1.06             | 29.8        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 1                            | L2   | 320           | 2.0  | 348           | 2.0  | 0.409     | 7.6         | LOS A            | 2.7               | 69.8      | 0.53      | 0.38                | 0.53             | 32.5        |
| 6                            | T1   | 541           | 2.0  | 588           | 2.0  | 0.409     | 7.2         | LOS A            | 2.8               | 71.4      | 0.52      | 0.36                | 0.52             | 34.2        |
| Approach                     |      | 861           | 2.0  | 936           | 2.0  | 0.409     | 7.4         | LOS A            | 2.8               | 71.4      | 0.52      | 0.37                | 0.52             | 33.5        |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 2                            | T1   | 1201          | 2.0  | 1305          | 2.0  | 0.792     | 18.9        | LOS C            | 17.3              | 440.6     | 0.88      | 1.07                | 1.59             | 29.4        |
| 12                           | R2   | 363           | 2.0  | 395           | 2.0  | 0.792     | 18.1        | LOS C            | 17.3              | 440.6     | 0.87      | 1.05                | 1.54             | 28.8        |
| Approach                     |      | 1564          | 2.0  | 1700          | 2.0  | 0.792     | 18.7        | LOS C            | 17.3              | 440.6     | 0.88      | 1.07                | 1.58             | 29.3        |
| All Vehicles                 |      | 2835          | 2.0  | 3082          | 2.0  | 0.792     | 14.6        | LOS B            | 17.3              | 440.6     | 0.77      | 0.83                | 1.18             | 30.5        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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## APPENDIX N

CAPACITY ANALYSIS REPORTS, DRIVEWAY #1 CONSOLIDATED IMPROVEMENTS



## **A. TRAFFIC SIGNAL**

## **WITHOUT WIDENING**

# HCM 6th Signalized Intersection Summary

## 1: Dana Circle & Old Cornelia Highway

2025 - Consolidated Traffic Signal  
AM Peak Hour

|                              |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Movement                     | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations          |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 448                                                                               | 146                                                                               | 109                                                                               | 850                                                                               | 279                                                                               | 248                                                                               |
| Future Volume (veh/h)        | 448                                                                               | 146                                                                               | 109                                                                               | 850                                                                               | 279                                                                               | 248                                                                               |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Ped-Bike Adj(A_pbT)          |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                | No                                                                                |                                                                                   |
| Adj Sat Flow, veh/h/ln       | 1796                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              |
| Adj Flow Rate, veh/h         | 487                                                                               | 0                                                                                 | 118                                                                               | 924                                                                               | 303                                                                               | 0                                                                                 |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Percent Heavy Veh, %         | 7                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Cap, veh/h                   | 963                                                                               |                                                                                   | 550                                                                               | 1245                                                                              | 364                                                                               |                                                                                   |
| Arrive On Green              | 0.54                                                                              | 0.00                                                                              | 0.06                                                                              | 0.67                                                                              | 0.20                                                                              | 0.00                                                                              |
| Sat Flow, veh/h              | 1796                                                                              | 1585                                                                              | 1781                                                                              | 1870                                                                              | 1781                                                                              | 1585                                                                              |
| Grp Volume(v), veh/h         | 487                                                                               | 0                                                                                 | 118                                                                               | 924                                                                               | 303                                                                               | 0                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1796                                                                              | 1585                                                                              | 1781                                                                              | 1870                                                                              | 1781                                                                              | 1585                                                                              |
| Q Serve(g_s), s              | 12.0                                                                              | 0.0                                                                               | 1.8                                                                               | 22.6                                                                              | 11.3                                                                              | 0.0                                                                               |
| Cycle Q Clear(g_c), s        | 12.0                                                                              | 0.0                                                                               | 1.8                                                                               | 22.6                                                                              | 11.3                                                                              | 0.0                                                                               |
| Prop In Lane                 |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Lane Grp Cap(c), veh/h       | 963                                                                               |                                                                                   | 550                                                                               | 1245                                                                              | 364                                                                               |                                                                                   |
| V/C Ratio(X)                 | 0.51                                                                              |                                                                                   | 0.21                                                                              | 0.74                                                                              | 0.83                                                                              |                                                                                   |
| Avail Cap(c_a), veh/h        | 1170                                                                              |                                                                                   | 612                                                                               | 1526                                                                              | 630                                                                               |                                                                                   |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              |
| Uniform Delay (d), s/veh     | 10.2                                                                              | 0.0                                                                               | 6.7                                                                               | 7.6                                                                               | 26.4                                                                              | 0.0                                                                               |
| Incr Delay (d2), s/veh       | 0.4                                                                               | 0.0                                                                               | 0.2                                                                               | 1.6                                                                               | 5.0                                                                               | 0.0                                                                               |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |
| %ile BackOfQ(95%),veh/ln     | 6.7                                                                               | 0.0                                                                               | 0.9                                                                               | 9.7                                                                               | 8.8                                                                               | 0.0                                                                               |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| LnGrp Delay(d),s/veh         | 10.6                                                                              | 0.0                                                                               | 6.9                                                                               | 9.2                                                                               | 31.4                                                                              | 0.0                                                                               |
| LnGrp LOS                    | B                                                                                 |                                                                                   | A                                                                                 | A                                                                                 | C                                                                                 |                                                                                   |
| Approach Vol, veh/h          | 487                                                                               | A                                                                                 |                                                                                   | 1042                                                                              | 303                                                                               | A                                                                                 |
| Approach Delay, s/veh        | 10.6                                                                              |                                                                                   |                                                                                   | 9.0                                                                               | 31.4                                                                              |                                                                                   |
| Approach LOS                 | B                                                                                 |                                                                                   |                                                                                   | A                                                                                 | C                                                                                 |                                                                                   |
| Timer - Assigned Phs         | 2                                                                                 |                                                                                   | 5                                                                                 |                                                                                   | 6                                                                                 | 8                                                                                 |
| Phs Duration (G+Y+Rc), s     | 50.6                                                                              |                                                                                   | 9.0                                                                               |                                                                                   | 41.6                                                                              | 18.7                                                                              |
| Change Period (Y+Rc), s      | 4.5                                                                               |                                                                                   | 4.5                                                                               |                                                                                   | 4.5                                                                               | 4.5                                                                               |
| Max Green Setting (Gmax), s  | 56.5                                                                              |                                                                                   | 6.9                                                                               |                                                                                   | 45.1                                                                              | 24.5                                                                              |
| Max Q Clear Time (g_c+I1), s | 24.6                                                                              |                                                                                   | 3.8                                                                               |                                                                                   | 14.0                                                                              | 13.3                                                                              |
| Green Ext Time (p_c), s      | 21.5                                                                              |                                                                                   | 0.1                                                                               |                                                                                   | 9.6                                                                               | 0.9                                                                               |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th Ctrl Delay           | 13.1                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |



# HCM 6th Signalized Intersection Summary

## 1: Dana Circle & Old Cornelia Highway

2025 - Consolidated Traffic Signal  
PM Peak Hour

|                                                                                                                    | →    | ↘     | ↙    | ←    | ↖    | ↗    |
|--------------------------------------------------------------------------------------------------------------------|------|-------|------|------|------|------|
| Movement                                                                                                           | EBT  | EBR   | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations                                                                                                | ↑    | ↑     | ↑    | ↑    | ↑    | ↑    |
| Traffic Volume (veh/h)                                                                                             | 1008 | 236   | 211  | 455  | 156  | 136  |
| Future Volume (veh/h)                                                                                              | 1008 | 236   | 211  | 455  | 156  | 136  |
| Initial Q (Qb), veh                                                                                                | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)                                                                                                |      | 1.00  | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj                                                                                                   | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach                                                                                              | No   |       |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln                                                                                             | 1885 | 1870  | 1870 | 1885 | 1870 | 1870 |
| Adj Flow Rate, veh/h                                                                                               | 1120 | 0     | 234  | 506  | 173  | 0    |
| Peak Hour Factor                                                                                                   | 0.90 | 0.90  | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, %                                                                                               | 1    | 2     | 2    | 1    | 2    | 2    |
| Cap, veh/h                                                                                                         | 1350 |       | 309  | 1524 | 205  |      |
| Arrive On Green                                                                                                    | 0.72 | 0.00  | 0.05 | 0.81 | 0.12 | 0.00 |
| Sat Flow, veh/h                                                                                                    | 1885 | 1585  | 1781 | 1885 | 1781 | 1585 |
| Grp Volume(v), veh/h                                                                                               | 1120 | 0     | 234  | 506  | 173  | 0    |
| Grp Sat Flow(s),veh/h/ln                                                                                           | 1885 | 1585  | 1781 | 1885 | 1781 | 1585 |
| Q Serve(g_s), s                                                                                                    | 49.0 | 0.0   | 3.8  | 8.3  | 11.2 | 0.0  |
| Cycle Q Clear(g_c), s                                                                                              | 49.0 | 0.0   | 3.8  | 8.3  | 11.2 | 0.0  |
| Prop In Lane                                                                                                       |      | 1.00  | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h                                                                                             | 1350 |       | 309  | 1524 | 205  |      |
| V/C Ratio(X)                                                                                                       | 0.83 |       | 0.76 | 0.33 | 0.84 |      |
| Avail Cap(c_a), veh/h                                                                                              | 1495 |       | 537  | 1911 | 325  |      |
| HCM Platoon Ratio                                                                                                  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)                                                                                                 | 1.00 | 0.00  | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh                                                                                           | 11.7 | 0.0   | 23.3 | 3.0  | 51.1 | 0.0  |
| Incr Delay (d2), s/veh                                                                                             | 3.8  | 0.0   | 3.8  | 0.1  | 11.0 | 0.0  |
| Initial Q Delay(d3),s/veh                                                                                          | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln                                                                                           | 24.0 | 0.0   | 8.6  | 3.5  | 9.6  | 0.0  |
| Unsig. Movement Delay, s/veh                                                                                       |      |       |      |      |      |      |
| LnGrp Delay(d),s/veh                                                                                               | 15.5 | 0.0   | 27.1 | 3.1  | 62.1 | 0.0  |
| LnGrp LOS                                                                                                          | B    |       | C    | A    | E    |      |
| Approach Vol, veh/h                                                                                                | 1120 | A     |      | 740  | 173  | A    |
| Approach Delay, s/veh                                                                                              | 15.5 |       |      | 10.7 | 62.1 |      |
| Approach LOS                                                                                                       | B    |       |      | B    | E    |      |
| Timer - Assigned Phs                                                                                               |      | 2     |      |      | 5    | 6    |
| Phs Duration (G+Y+Rc), s                                                                                           |      | 99.8  |      |      | 10.9 | 88.9 |
| Change Period (Y+Rc), s                                                                                            |      | 4.5   |      |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s                                                                                        |      | 119.5 |      |      | 21.5 | 93.5 |
| Max Q Clear Time (g_c+I1), s                                                                                       |      | 10.3  |      |      | 5.8  | 51.0 |
| Green Ext Time (p_c), s                                                                                            |      | 13.1  |      |      | 0.6  | 33.4 |
|                                                                                                                    |      |       |      |      |      | 0.3  |
| Intersection Summary                                                                                               |      |       |      |      |      |      |
| HCM 6th Ctrl Delay                                                                                                 |      |       | 17.7 |      |      |      |
| HCM 6th LOS                                                                                                        |      |       | B    |      |      |      |
| Notes                                                                                                              |      |       |      |      |      |      |
| Unsignalized Delay for [NBR, EBR, WBT] is excluded from calculations of the approach delay and intersection delay. |      |       |      |      |      |      |

# HCM 6th Signalized Intersection Summary

## 1: Dana Circle & Old Cornelia Highway

2030 - Consolidated Traffic Signal  
AM Peak Hour

|                              |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Movement                     | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations          |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 481                                                                               | 169                                                                               | 130                                                                               | 914                                                                               | 333                                                                               | 301                                                                               |
| Future Volume (veh/h)        | 481                                                                               | 169                                                                               | 130                                                                               | 914                                                                               | 333                                                                               | 301                                                                               |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Ped-Bike Adj(A_pbT)          |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                | No                                                                                |                                                                                   |
| Adj Sat Flow, veh/h/ln       | 1796                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              |
| Adj Flow Rate, veh/h         | 523                                                                               | 0                                                                                 | 141                                                                               | 993                                                                               | 362                                                                               | 0                                                                                 |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Percent Heavy Veh, %         | 7                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Cap, veh/h                   | 960                                                                               |                                                                                   | 502                                                                               | 1221                                                                              | 413                                                                               |                                                                                   |
| Arrive On Green              | 0.53                                                                              | 0.00                                                                              | 0.06                                                                              | 0.65                                                                              | 0.23                                                                              | 0.00                                                                              |
| Sat Flow, veh/h              | 1796                                                                              | 1585                                                                              | 1781                                                                              | 1870                                                                              | 1781                                                                              | 1585                                                                              |
| Grp Volume(v), veh/h         | 523                                                                               | 0                                                                                 | 141                                                                               | 993                                                                               | 362                                                                               | 0                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1796                                                                              | 1585                                                                              | 1781                                                                              | 1870                                                                              | 1781                                                                              | 1585                                                                              |
| Q Serve(g_s), s              | 15.0                                                                              | 0.0                                                                               | 2.6                                                                               | 30.8                                                                              | 15.3                                                                              | 0.0                                                                               |
| Cycle Q Clear(g_c), s        | 15.0                                                                              | 0.0                                                                               | 2.6                                                                               | 30.8                                                                              | 15.3                                                                              | 0.0                                                                               |
| Prop In Lane                 |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Lane Grp Cap(c), veh/h       | 960                                                                               |                                                                                   | 502                                                                               | 1221                                                                              | 413                                                                               |                                                                                   |
| V/C Ratio(X)                 | 0.54                                                                              |                                                                                   | 0.28                                                                              | 0.81                                                                              | 0.88                                                                              |                                                                                   |
| Avail Cap(c_a), veh/h        | 1035                                                                              |                                                                                   | 551                                                                               | 1350                                                                              | 557                                                                               |                                                                                   |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              |
| Uniform Delay (d), s/veh     | 12.0                                                                              | 0.0                                                                               | 8.3                                                                               | 10.0                                                                              | 29.0                                                                              | 0.0                                                                               |
| Incr Delay (d2), s/veh       | 0.5                                                                               | 0.0                                                                               | 0.3                                                                               | 3.6                                                                               | 11.5                                                                              | 0.0                                                                               |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |
| %ile BackOfQ(95%),veh/ln     | 8.6                                                                               | 0.0                                                                               | 1.4                                                                               | 14.8                                                                              | 12.3                                                                              | 0.0                                                                               |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| LnGrp Delay(d),s/veh         | 12.5                                                                              | 0.0                                                                               | 8.6                                                                               | 13.7                                                                              | 40.4                                                                              | 0.0                                                                               |
| LnGrp LOS                    | B                                                                                 |                                                                                   | A                                                                                 | B                                                                                 | D                                                                                 |                                                                                   |
| Approach Vol, veh/h          | 523                                                                               | A                                                                                 |                                                                                   | 1134                                                                              | 362                                                                               | A                                                                                 |
| Approach Delay, s/veh        | 12.5                                                                              |                                                                                   |                                                                                   | 13.0                                                                              | 40.4                                                                              |                                                                                   |
| Approach LOS                 | B                                                                                 |                                                                                   |                                                                                   | B                                                                                 | D                                                                                 |                                                                                   |
| Timer - Assigned Phs         | 2                                                                                 |                                                                                   | 5                                                                                 |                                                                                   | 6                                                                                 | 8                                                                                 |
| Phs Duration (G+Y+Rc), s     | 55.6                                                                              |                                                                                   | 9.3                                                                               |                                                                                   | 46.4                                                                              | 22.7                                                                              |
| Change Period (Y+Rc), s      | 4.5                                                                               |                                                                                   | 4.5                                                                               |                                                                                   | 4.5                                                                               | 4.5                                                                               |
| Max Green Setting (Gmax), s  | 56.5                                                                              |                                                                                   | 6.9                                                                               |                                                                                   | 45.1                                                                              | 24.5                                                                              |
| Max Q Clear Time (g_c+I1), s | 32.8                                                                              |                                                                                   | 4.6                                                                               |                                                                                   | 17.0                                                                              | 17.3                                                                              |
| Green Ext Time (p_c), s      | 18.4                                                                              |                                                                                   | 0.1                                                                               |                                                                                   | 10.0                                                                              | 0.8                                                                               |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th Ctrl Delay           | 17.8                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

# HCM 6th Signalized Intersection Summary

## 1: Dana Circle & Old Cornelia Highway

2030 - Consolidated Traffic Signal  
PM Peak Hour

|                                                                                                               | →    | ↘     | ↙    | ←    | ↖    | ↗    |
|---------------------------------------------------------------------------------------------------------------|------|-------|------|------|------|------|
| Movement                                                                                                      | EBT  | EBR   | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations                                                                                           | ↑    | ↑     | ↑    | ↑    | ↑    | ↑    |
| Traffic Volume (veh/h)                                                                                        | 1084 | 282   | 256  | 489  | 188  | 167  |
| Future Volume (veh/h)                                                                                         | 1084 | 282   | 256  | 489  | 188  | 167  |
| Initial Q (Qb), veh                                                                                           | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)                                                                                           |      | 1.00  | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj                                                                                              | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach                                                                                         | No   |       |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln                                                                                        | 1885 | 1870  | 1870 | 1885 | 1870 | 1870 |
| Adj Flow Rate, veh/h                                                                                          | 1204 | 0     | 284  | 543  | 209  | 0    |
| Peak Hour Factor                                                                                              | 0.90 | 0.90  | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, %                                                                                          | 1    | 2     | 2    | 1    | 2    | 2    |
| Cap, veh/h                                                                                                    | 1196 |       | 305  | 1524 | 232  |      |
| Arrive On Green                                                                                               | 0.63 | 0.00  | 0.14 | 0.81 | 0.13 | 0.00 |
| Sat Flow, veh/h                                                                                               | 1885 | 1585  | 1781 | 1885 | 1781 | 1585 |
| Grp Volume(v), veh/h                                                                                          | 1204 | 0     | 284  | 543  | 209  | 0    |
| Grp Sat Flow(s),veh/h/ln                                                                                      | 1885 | 1585  | 1781 | 1885 | 1781 | 1585 |
| Q Serve(g_s), s                                                                                               | 93.5 | 0.0   | 19.1 | 11.4 | 17.0 | 0.0  |
| Cycle Q Clear(g_c), s                                                                                         | 93.5 | 0.0   | 19.1 | 11.4 | 17.0 | 0.0  |
| Prop In Lane                                                                                                  |      | 1.00  | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h                                                                                        | 1196 |       | 305  | 1524 | 232  |      |
| V/C Ratio(X)                                                                                                  | 1.01 |       | 0.93 | 0.36 | 0.90 |      |
| Avail Cap(c_a), veh/h                                                                                         | 1196 |       | 309  | 1529 | 260  |      |
| HCM Platoon Ratio                                                                                             | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)                                                                                            | 1.00 | 0.00  | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh                                                                                      | 26.9 | 0.0   | 55.3 | 3.8  | 63.1 | 0.0  |
| Incr Delay (d2), s/veh                                                                                        | 27.7 | 0.0   | 33.7 | 0.1  | 29.3 | 0.0  |
| Initial Q Delay(d3),s/veh                                                                                     | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln                                                                                      | 58.1 | 0.0   | 18.6 | 6.0  | 14.8 | 0.0  |
| Unsig. Movement Delay, s/veh                                                                                  |      |       |      |      |      |      |
| LnGrp Delay(d),s/veh                                                                                          | 54.6 | 0.0   | 89.0 | 3.9  | 92.5 | 0.0  |
| LnGrp LOS                                                                                                     | F    |       | F    | A    | F    |      |
| Approach Vol, veh/h                                                                                           | 1204 | A     |      | 827  | 209  | A    |
| Approach Delay, s/veh                                                                                         | 54.6 |       |      | 33.1 | 92.5 |      |
| Approach LOS                                                                                                  | D    |       |      | C    | F    |      |
| Timer - Assigned Phs                                                                                          |      | 2     |      |      | 5    | 6    |
| Phs Duration (G+Y+Rc), s                                                                                      |      | 123.7 |      |      | 25.7 | 98.0 |
| Change Period (Y+Rc), s                                                                                       |      | 4.5   |      |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s                                                                                   |      | 119.5 |      |      | 21.5 | 93.5 |
| Max Q Clear Time (g_c+I1), s                                                                                  |      | 13.4  |      |      | 21.1 | 95.5 |
| Green Ext Time (p_c), s                                                                                       |      | 14.6  |      |      | 0.0  | 0.0  |
|                                                                                                               |      |       |      |      | 0.0  | 0.2  |
| Intersection Summary                                                                                          |      |       |      |      |      |      |
| HCM 6th Ctrl Delay                                                                                            |      |       | 50.2 |      |      |      |
| HCM 6th LOS                                                                                                   |      |       | D    |      |      |      |
| Notes                                                                                                         |      |       |      |      |      |      |
| Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay. |      |       |      |      |      |      |

# HCM 6th Signalized Intersection Summary

## 1: Dana Circle & Old Cornelia Highway

2035 - Consolidated Traffic Signal  
AM Peak Hour

|                                                                                                               | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|---------------------------------------------------------------------------------------------------------------|------|------|------|------|------|------|
| Movement                                                                                                      | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations                                                                                           | ↑    | ↑    | ↑    | ↑    | ↑    | ↑    |
| Traffic Volume (veh/h)                                                                                        | 519  | 194  | 152  | 986  | 395  | 364  |
| Future Volume (veh/h)                                                                                         | 519  | 194  | 152  | 986  | 395  | 364  |
| Initial Q (Qb), veh                                                                                           | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)                                                                                           |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj                                                                                              | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach                                                                                         | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln                                                                                        | 1796 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h                                                                                          | 564  | 0    | 165  | 1072 | 429  | 0    |
| Peak Hour Factor                                                                                              | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %                                                                                          | 7    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                                                                                                    | 934  |      | 449  | 1187 | 467  |      |
| Arrive On Green                                                                                               | 0.52 | 0.00 | 0.06 | 0.63 | 0.26 | 0.00 |
| Sat Flow, veh/h                                                                                               | 1796 | 1585 | 1781 | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h                                                                                          | 564  | 0    | 165  | 1072 | 429  | 0    |
| Grp Sat Flow(s),veh/h/ln                                                                                      | 1796 | 1585 | 1781 | 1870 | 1781 | 1585 |
| Q Serve(g_s), s                                                                                               | 19.1 | 0.0  | 3.5  | 42.6 | 20.3 | 0.0  |
| Cycle Q Clear(g_c), s                                                                                         | 19.1 | 0.0  | 3.5  | 42.6 | 20.3 | 0.0  |
| Prop In Lane                                                                                                  |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h                                                                                        | 934  |      | 449  | 1187 | 467  |      |
| V/C Ratio(X)                                                                                                  | 0.60 |      | 0.37 | 0.90 | 0.92 |      |
| Avail Cap(c_a), veh/h                                                                                         | 934  |      | 478  | 1217 | 502  |      |
| HCM Platoon Ratio                                                                                             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)                                                                                            | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh                                                                                      | 14.6 | 0.0  | 10.6 | 13.6 | 31.2 | 0.0  |
| Incr Delay (d2), s/veh                                                                                        | 1.1  | 0.0  | 0.5  | 9.5  | 21.4 | 0.0  |
| Initial Q Delay(d3),s/veh                                                                                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln                                                                                      | 11.2 | 0.0  | 2.0  | 23.0 | 16.9 | 0.0  |
| Unsig. Movement Delay, s/veh                                                                                  |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh                                                                                          | 15.7 | 0.0  | 11.1 | 23.1 | 52.5 | 0.0  |
| LnGrp LOS                                                                                                     | B    |      | B    | C    | D    |      |
| Approach Vol, veh/h                                                                                           | 564  | A    |      | 1237 | 429  | A    |
| Approach Delay, s/veh                                                                                         | 15.7 |      |      | 21.5 | 52.5 |      |
| Approach LOS                                                                                                  | B    |      |      | C    | D    |      |
| Timer - Assigned Phs                                                                                          |      | 2    |      |      | 5    | 6    |
| Phs Duration (G+Y+Rc), s                                                                                      |      | 59.6 |      |      | 10.0 | 49.6 |
| Change Period (Y+Rc), s                                                                                       |      | 4.5  |      |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s                                                                                   |      | 56.5 |      |      | 6.9  | 45.1 |
| Max Q Clear Time (g_c+I1), s                                                                                  |      | 44.6 |      |      | 5.5  | 21.1 |
| Green Ext Time (p_c), s                                                                                       |      | 10.5 |      |      | 0.1  | 10.0 |
|                                                                                                               |      |      |      |      |      | 0.4  |
| Intersection Summary                                                                                          |      |      |      |      |      |      |
| HCM 6th Ctrl Delay                                                                                            |      |      | 26.0 |      |      |      |
| HCM 6th LOS                                                                                                   |      |      | C    |      |      |      |
| Notes                                                                                                         |      |      |      |      |      |      |
| Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay. |      |      |      |      |      |      |

# HCM 6th Signalized Intersection Summary

## 1: Dana Circle & Old Cornelia Highway

2035 - Consolidated Traffic Signal  
PM Peak Hour

|                                                                                                               |  |  |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Movement                                                                                                      | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations                                                                                           | ↑                                                                                 | ↑                                                                                 | ↑                                                                                 | ↑                                                                                 | ↑                                                                                 | ↑                                                                                 |
| Traffic Volume (veh/h)                                                                                        | 1169                                                                              | 348                                                                               | 324                                                                               | 527                                                                               | 227                                                                               | 206                                                                               |
| Future Volume (veh/h)                                                                                         | 1169                                                                              | 348                                                                               | 324                                                                               | 527                                                                               | 227                                                                               | 206                                                                               |
| Initial Q (Qb), veh                                                                                           | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Ped-Bike Adj(A_pbT)                                                                                           |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Parking Bus, Adj                                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Work Zone On Approach                                                                                         | No                                                                                |                                                                                   |                                                                                   | No                                                                                | No                                                                                |                                                                                   |
| Adj Sat Flow, veh/h/ln                                                                                        | 1885                                                                              | 1870                                                                              | 1870                                                                              | 1885                                                                              | 1870                                                                              | 1870                                                                              |
| Adj Flow Rate, veh/h                                                                                          | 1299                                                                              | 0                                                                                 | 360                                                                               | 586                                                                               | 252                                                                               | 0                                                                                 |
| Peak Hour Factor                                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              |
| Percent Heavy Veh, %                                                                                          | 1                                                                                 | 2                                                                                 | 2                                                                                 | 1                                                                                 | 2                                                                                 | 2                                                                                 |
| Cap, veh/h                                                                                                    | 1175                                                                              |                                                                                   | 303                                                                               | 1502                                                                              | 255                                                                               |                                                                                   |
| Arrive On Green                                                                                               | 0.62                                                                              | 0.00                                                                              | 0.14                                                                              | 0.80                                                                              | 0.14                                                                              | 0.00                                                                              |
| Sat Flow, veh/h                                                                                               | 1885                                                                              | 1585                                                                              | 1781                                                                              | 1885                                                                              | 1781                                                                              | 1585                                                                              |
| Grp Volume(v), veh/h                                                                                          | 1299                                                                              | 0                                                                                 | 360                                                                               | 586                                                                               | 252                                                                               | 0                                                                                 |
| Grp Sat Flow(s),veh/h/ln                                                                                      | 1885                                                                              | 1585                                                                              | 1781                                                                              | 1885                                                                              | 1781                                                                              | 1585                                                                              |
| Q Serve(g_s), s                                                                                               | 93.5                                                                              | 0.0                                                                               | 21.5                                                                              | 13.8                                                                              | 21.2                                                                              | 0.0                                                                               |
| Cycle Q Clear(g_c), s                                                                                         | 93.5                                                                              | 0.0                                                                               | 21.5                                                                              | 13.8                                                                              | 21.2                                                                              | 0.0                                                                               |
| Prop In Lane                                                                                                  |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |
| Lane Grp Cap(c), veh/h                                                                                        | 1175                                                                              |                                                                                   | 303                                                                               | 1502                                                                              | 255                                                                               |                                                                                   |
| V/C Ratio(X)                                                                                                  | 1.11                                                                              |                                                                                   | 1.19                                                                              | 0.39                                                                              | 0.99                                                                              |                                                                                   |
| Avail Cap(c_a), veh/h                                                                                         | 1175                                                                              |                                                                                   | 303                                                                               | 1502                                                                              | 255                                                                               |                                                                                   |
| HCM Platoon Ratio                                                                                             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Upstream Filter(I)                                                                                            | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              |
| Uniform Delay (d), s/veh                                                                                      | 28.3                                                                              | 0.0                                                                               | 57.3                                                                              | 4.5                                                                               | 64.1                                                                              | 0.0                                                                               |
| Incr Delay (d2), s/veh                                                                                        | 60.1                                                                              | 0.0                                                                               | 112.3                                                                             | 0.2                                                                               | 52.5                                                                              | 0.0                                                                               |
| Initial Q Delay(d3),s/veh                                                                                     | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |
| %ile BackOfQ(95%),veh/ln                                                                                      | 76.2                                                                              | 0.0                                                                               | 30.1                                                                              | 7.6                                                                               | 19.4                                                                              | 0.0                                                                               |
| Unsig. Movement Delay, s/veh                                                                                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| LnGrp Delay(d),s/veh                                                                                          | 88.4                                                                              | 0.0                                                                               | 169.6                                                                             | 4.7                                                                               | 116.6                                                                             | 0.0                                                                               |
| LnGrp LOS                                                                                                     | F                                                                                 |                                                                                   | F                                                                                 | A                                                                                 | F                                                                                 |                                                                                   |
| Approach Vol, veh/h                                                                                           | 1299                                                                              | A                                                                                 |                                                                                   | 946                                                                               | 252                                                                               | A                                                                                 |
| Approach Delay, s/veh                                                                                         | 88.4                                                                              |                                                                                   |                                                                                   | 67.4                                                                              | 116.6                                                                             |                                                                                   |
| Approach LOS                                                                                                  | F                                                                                 |                                                                                   |                                                                                   | E                                                                                 | F                                                                                 |                                                                                   |
| Timer - Assigned Phs                                                                                          |                                                                                   | 2                                                                                 |                                                                                   |                                                                                   | 5                                                                                 | 6                                                                                 |
| Phs Duration (G+Y+Rc), s                                                                                      |                                                                                   | 124.0                                                                             |                                                                                   |                                                                                   | 26.0                                                                              | 98.0                                                                              |
| Change Period (Y+Rc), s                                                                                       |                                                                                   | 4.5                                                                               |                                                                                   |                                                                                   | 4.5                                                                               | 4.5                                                                               |
| Max Green Setting (Gmax), s                                                                                   |                                                                                   | 119.5                                                                             |                                                                                   |                                                                                   | 21.5                                                                              | 93.5                                                                              |
| Max Q Clear Time (g_c+I1), s                                                                                  |                                                                                   | 15.8                                                                              |                                                                                   |                                                                                   | 23.5                                                                              | 95.5                                                                              |
| Green Ext Time (p_c), s                                                                                       |                                                                                   | 16.5                                                                              |                                                                                   |                                                                                   | 0.0                                                                               | 0.0                                                                               |
| Intersection Summary                                                                                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th Ctrl Delay                                                                                            |                                                                                   |                                                                                   | 83.3                                                                              |                                                                                   |                                                                                   |                                                                                   |
| HCM 6th LOS                                                                                                   |                                                                                   |                                                                                   | F                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| Notes                                                                                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay. |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

**WITH WIDENING**



# HCM 6th Signalized Intersection Summary

## 1: Dana Circle & Old Cornelia Highway

2025 - Consolidated Traffic Signal w Widening

AM Peak Hour

|                              | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|------------------------------|------|------|------|------|------|------|
| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations          | ↑↑   | ↑    | ↘    | ↑↑   | ↘    | ↑    |
| Traffic Volume (veh/h)       | 448  | 146  | 109  | 850  | 279  | 248  |
| Future Volume (veh/h)        | 448  | 146  | 109  | 850  | 279  | 248  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1796 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 487  | 0    | 118  | 924  | 303  | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 7    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1422 |      | 584  | 2100 | 399  |      |
| Arrive On Green              | 0.42 | 0.00 | 0.08 | 0.59 | 0.22 | 0.00 |
| Sat Flow, veh/h              | 3503 | 1585 | 1781 | 3647 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 487  | 0    | 118  | 924  | 303  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1706 | 1585 | 1781 | 1777 | 1781 | 1585 |
| Q Serve(g_s), s              | 4.7  | 0.0  | 1.6  | 7.0  | 7.7  | 0.0  |
| Cycle Q Clear(g_c), s        | 4.7  | 0.0  | 1.6  | 7.0  | 7.7  | 0.0  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1422 |      | 584  | 2100 | 399  |      |
| V/C Ratio(X)                 | 0.34 |      | 0.20 | 0.44 | 0.76 |      |
| Avail Cap(c_a), veh/h        | 1929 |      | 859  | 3177 | 1373 |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh     | 9.7  | 0.0  | 6.1  | 5.5  | 17.7 | 0.0  |
| Incr Delay (d2), s/veh       | 0.1  | 0.0  | 0.2  | 0.1  | 3.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 2.2  | 0.0  | 0.6  | 2.2  | 5.7  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 9.8  | 0.0  | 6.2  | 5.6  | 20.6 | 0.0  |
| LnGrp LOS                    | A    |      | A    | A    | C    |      |
| Approach Vol, veh/h          | 487  | A    |      | 1042 | 303  | A    |
| Approach Delay, s/veh        | 9.8  |      |      | 5.7  | 20.6 |      |
| Approach LOS                 | A    |      |      | A    | C    |      |
| Timer - Assigned Phs         |      | 2    |      |      | 5    | 6    |
| Phs Duration (G+Y+Rc), s     |      | 33.3 |      |      | 8.5  | 24.8 |
| Change Period (Y+Rc), s      |      | 4.5  |      |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s  |      | 43.5 |      |      | 11.5 | 27.5 |
| Max Q Clear Time (g_c+I1), s |      | 9.0  |      |      | 3.6  | 6.7  |
| Green Ext Time (p_c), s      |      | 19.8 |      |      | 0.2  | 7.6  |

### Intersection Summary

|                    |     |
|--------------------|-----|
| HCM 6th Ctrl Delay | 9.3 |
| HCM 6th LOS        | A   |

### Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

# HCM 6th Signalized Intersection Summary

## 1: Dana Circle & Old Cornelia Highway

2025 - Consolidated Traffic Signal w Widening  
PM Peak Hour

|                              | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|------------------------------|------|------|------|------|------|------|
| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations          | ↑↑   | ↑    | ↘    | ↑↑   | ↘    | ↑    |
| Traffic Volume (veh/h)       | 1008 | 236  | 211  | 455  | 156  | 136  |
| Future Volume (veh/h)        | 1008 | 236  | 211  | 455  | 156  | 136  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1885 | 1870 | 1870 | 1885 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 1120 | 0    | 234  | 506  | 173  | 0    |
| Peak Hour Factor             | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, %         | 1    | 2    | 2    | 1    | 2    | 2    |
| Cap, veh/h                   | 1967 |      | 456  | 2564 | 238  |      |
| Arrive On Green              | 0.55 | 0.00 | 0.09 | 0.72 | 0.13 | 0.00 |
| Sat Flow, veh/h              | 3676 | 1585 | 1781 | 3676 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 1120 | 0    | 234  | 506  | 173  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1791 | 1585 | 1781 | 1791 | 1781 | 1585 |
| Q Serve(g_s), s              | 12.2 | 0.0  | 2.9  | 2.8  | 5.6  | 0.0  |
| Cycle Q Clear(g_c), s        | 12.2 | 0.0  | 2.9  | 2.8  | 5.6  | 0.0  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1967 |      | 456  | 2564 | 238  |      |
| V/C Ratio(X)                 | 0.57 |      | 0.51 | 0.20 | 0.73 |      |
| Avail Cap(c_a), veh/h        | 2346 |      | 858  | 3750 | 552  |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh     | 8.8  | 0.0  | 6.8  | 2.8  | 24.8 | 0.0  |
| Incr Delay (d2), s/veh       | 0.3  | 0.0  | 0.9  | 0.0  | 4.2  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 5.9  | 0.0  | 1.1  | 0.6  | 4.5  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 9.1  | 0.0  | 7.7  | 2.8  | 29.0 | 0.0  |
| LnGrp LOS                    | A    |      | A    | A    | C    |      |
| Approach Vol, veh/h          | 1120 | A    |      | 740  | 173  | A    |
| Approach Delay, s/veh        | 9.1  |      |      | 4.4  | 29.0 |      |
| Approach LOS                 | A    |      |      | A    | C    |      |
| Timer - Assigned Phs         |      | 2    |      |      | 5    | 6    |
| Phs Duration (G+Y+Rc), s     |      | 47.2 |      |      | 9.9  | 37.3 |
| Change Period (Y+Rc), s      |      | 4.5  |      |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s  |      | 62.5 |      |      | 18.9 | 39.1 |
| Max Q Clear Time (g_c+I1), s |      | 4.8  |      |      | 4.9  | 14.2 |
| Green Ext Time (p_c), s      |      | 12.7 |      |      | 0.6  | 18.5 |
|                              |      |      |      |      |      | 0.4  |
| Intersection Summary         |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 9.1  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

### Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

# HCM 6th Signalized Intersection Summary

## 1: Dana Circle & Old Cornelia Highway

2030 - Consolidated Traffic Signal w Widening

AM Peak Hour

|                              | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|------------------------------|------|------|------|------|------|------|
| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations          | ↑↑   | ↑    | ↘    | ↑↑   | ↘    | ↑    |
| Traffic Volume (veh/h)       | 481  | 169  | 130  | 914  | 333  | 301  |
| Future Volume (veh/h)        | 481  | 169  | 130  | 914  | 333  | 301  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1796 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 523  | 0    | 141  | 993  | 362  | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 7    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1417 |      | 550  | 2061 | 452  |      |
| Arrive On Green              | 0.42 | 0.00 | 0.08 | 0.58 | 0.25 | 0.00 |
| Sat Flow, veh/h              | 3503 | 1585 | 1781 | 3647 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 523  | 0    | 141  | 993  | 362  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1706 | 1585 | 1781 | 1777 | 1781 | 1585 |
| Q Serve(g_s), s              | 5.7  | 0.0  | 2.2  | 8.8  | 10.3 | 0.0  |
| Cycle Q Clear(g_c), s        | 5.7  | 0.0  | 2.2  | 8.8  | 10.3 | 0.0  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1417 |      | 550  | 2061 | 452  |      |
| V/C Ratio(X)                 | 0.37 |      | 0.26 | 0.48 | 0.80 |      |
| Avail Cap(c_a), veh/h        | 1738 |      | 785  | 2863 | 1237 |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh     | 10.9 | 0.0  | 7.0  | 6.6  | 18.9 | 0.0  |
| Incr Delay (d2), s/veh       | 0.2  | 0.0  | 0.2  | 0.2  | 3.4  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 3.0  | 0.0  | 1.0  | 3.5  | 7.7  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 11.1 | 0.0  | 7.3  | 6.8  | 22.2 | 0.0  |
| LnGrp LOS                    | B    |      | A    | A    | C    |      |
| Approach Vol, veh/h          | 523  | A    |      | 1134 | 362  | A    |
| Approach Delay, s/veh        | 11.1 |      |      | 6.9  | 22.2 |      |
| Approach LOS                 | B    |      |      | A    | C    |      |
| Timer - Assigned Phs         | 2    |      | 5    |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     | 35.8 |      | 8.9  |      | 26.9 | 18.2 |
| Change Period (Y+Rc), s      | 4.5  |      | 4.5  |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s  | 43.5 |      | 11.5 |      | 27.5 | 37.5 |
| Max Q Clear Time (g_c+I1), s | 10.8 |      | 4.2  |      | 7.7  | 12.3 |
| Green Ext Time (p_c), s      | 20.5 |      | 0.2  |      | 8.0  | 1.4  |

### Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 10.7 |
| HCM 6th LOS        | B    |

### Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

# HCM 6th Signalized Intersection Summary

## 1: Dana Circle & Old Cornelia Highway

2030 - Consolidated Traffic Signal w Widening

PM Peak Hour

|                              | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|------------------------------|------|------|------|------|------|------|
| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations          | ↑↑   | ↑    | ↘    | ↑↑   | ↘    | ↑    |
| Traffic Volume (veh/h)       | 1084 | 282  | 256  | 489  | 188  | 167  |
| Future Volume (veh/h)        | 1084 | 282  | 256  | 489  | 188  | 167  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1885 | 1870 | 1870 | 1885 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 1204 | 0    | 284  | 543  | 209  | 0    |
| Peak Hour Factor             | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, %         | 1    | 2    | 2    | 1    | 2    | 2    |
| Cap, veh/h                   | 1921 |      | 437  | 2543 | 269  |      |
| Arrive On Green              | 0.54 | 0.00 | 0.10 | 0.71 | 0.15 | 0.00 |
| Sat Flow, veh/h              | 3676 | 1585 | 1781 | 3676 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 1204 | 0    | 284  | 543  | 209  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1791 | 1585 | 1781 | 1791 | 1781 | 1585 |
| Q Serve(g_s), s              | 15.2 | 0.0  | 4.0  | 3.4  | 7.3  | 0.0  |
| Cycle Q Clear(g_c), s        | 15.2 | 0.0  | 4.0  | 3.4  | 7.3  | 0.0  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1921 |      | 437  | 2543 | 269  |      |
| V/C Ratio(X)                 | 0.63 |      | 0.65 | 0.21 | 0.78 |      |
| Avail Cap(c_a), veh/h        | 2162 |      | 771  | 3456 | 509  |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh     | 10.5 | 0.0  | 9.8  | 3.2  | 26.5 | 0.0  |
| Incr Delay (d2), s/veh       | 0.5  | 0.0  | 1.6  | 0.0  | 4.8  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 7.9  | 0.0  | 2.0  | 1.0  | 6.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 11.0 | 0.0  | 11.4 | 3.3  | 31.3 | 0.0  |
| LnGrp LOS                    | B    |      | B    | A    | C    |      |
| Approach Vol, veh/h          | 1204 | A    |      | 827  | 209  | A    |
| Approach Delay, s/veh        | 11.0 |      |      | 6.0  | 31.3 |      |
| Approach LOS                 | B    |      |      | A    | C    |      |
| Timer - Assigned Phs         |      | 2    |      |      | 5    | 6    |
| Phs Duration (G+Y+Rc), s     |      | 50.5 |      |      | 11.3 | 39.2 |
| Change Period (Y+Rc), s      |      | 4.5  |      |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s  |      | 62.5 |      |      | 18.9 | 39.1 |
| Max Q Clear Time (g_c+I1), s |      | 5.4  |      |      | 6.0  | 17.2 |
| Green Ext Time (p_c), s      |      | 12.8 |      |      | 0.8  | 17.5 |

### Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 11.0 |
| HCM 6th LOS        | B    |

### Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

# HCM 6th Signalized Intersection Summary

## 1: Dana Circle & Old Cornelia Highway

2035 - Consolidated Traffic Signal w Widening

AM Peak Hour

|                              | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|------------------------------|------|------|------|------|------|------|
| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations          | ↑↑   | ↗    | ↙    | ↑↑   | ↙    | ↗    |
| Traffic Volume (veh/h)       | 519  | 194  | 152  | 986  | 395  | 364  |
| Future Volume (veh/h)        | 519  | 194  | 152  | 986  | 395  | 364  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1796 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 564  | 0    | 165  | 1072 | 429  | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 7    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1026 |      | 565  | 2005 | 511  |      |
| Arrive On Green              | 0.30 | 0.00 | 0.19 | 0.56 | 0.29 | 0.00 |
| Sat Flow, veh/h              | 3503 | 1585 | 1781 | 3647 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 564  | 0    | 165  | 1072 | 429  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1706 | 1585 | 1781 | 1777 | 1781 | 1585 |
| Q Serve(g_s), s              | 8.4  | 0.0  | 0.0  | 11.4 | 13.7 | 0.0  |
| Cycle Q Clear(g_c), s        | 8.4  | 0.0  | 0.0  | 11.4 | 13.7 | 0.0  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1026 |      | 565  | 2005 | 511  |      |
| V/C Ratio(X)                 | 0.55 |      | 0.29 | 0.53 | 0.84 |      |
| Avail Cap(c_a), veh/h        | 1551 |      | 567  | 2555 | 1104 |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh     | 17.7 | 0.0  | 17.3 | 8.2  | 20.3 | 0.0  |
| Incr Delay (d2), s/veh       | 0.5  | 0.0  | 0.3  | 0.2  | 3.8  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 5.1  | 0.0  | 3.0  | 5.3  | 9.8  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 18.2 | 0.0  | 17.6 | 8.4  | 24.0 | 0.0  |
| LnGrp LOS                    | B    |      | B    | A    | C    |      |
| Approach Vol, veh/h          | 564  | A    |      | 1237 | 429  | A    |
| Approach Delay, s/veh        | 18.2 |      |      | 9.7  | 24.0 |      |
| Approach LOS                 | B    |      |      | A    | C    |      |
| Timer - Assigned Phs         | 2    |      | 5    |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     | 38.6 |      | 15.9 |      | 22.7 | 21.9 |
| Change Period (Y+Rc), s      | 4.5  |      | 4.5  |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s  | 43.5 |      | 11.5 |      | 27.5 | 37.5 |
| Max Q Clear Time (g_c+I1), s | 13.4 |      | 2.0  |      | 10.4 | 15.7 |
| Green Ext Time (p_c), s      | 20.7 |      | 0.3  |      | 7.8  | 1.7  |
| Intersection Summary         |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           | 14.6 |      |      |      |      |      |
| HCM 6th LOS                  | B    |      |      |      |      |      |

# HCM 6th Signalized Intersection Summary

## 1: Dana Circle & Old Cornelia Highway

2035 - Consolidated Traffic Signal w Widening

PM Peak Hour

|                              | →    | ↘    | ↙    | ←    | ↖    | ↗    |
|------------------------------|------|------|------|------|------|------|
| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations          | ↑↑   | ↑    | ↘    | ↑↑   | ↘    | ↑    |
| Traffic Volume (veh/h)       | 1169 | 348  | 324  | 527  | 227  | 206  |
| Future Volume (veh/h)        | 1169 | 348  | 324  | 527  | 227  | 206  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1885 | 1870 | 1870 | 1885 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 1299 | 0    | 360  | 586  | 252  | 0    |
| Peak Hour Factor             | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, %         | 1    | 2    | 2    | 1    | 2    | 2    |
| Cap, veh/h                   | 1841 |      | 425  | 2516 | 305  |      |
| Arrive On Green              | 0.51 | 0.00 | 0.13 | 0.70 | 0.17 | 0.00 |
| Sat Flow, veh/h              | 3676 | 1585 | 1781 | 3676 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 1299 | 0    | 360  | 586  | 252  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1791 | 1585 | 1781 | 1791 | 1781 | 1585 |
| Q Serve(g_s), s              | 19.7 | 0.0  | 6.0  | 4.2  | 9.7  | 0.0  |
| Cycle Q Clear(g_c), s        | 19.7 | 0.0  | 6.0  | 4.2  | 9.7  | 0.0  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1841 |      | 425  | 2516 | 305  |      |
| V/C Ratio(X)                 | 0.71 |      | 0.85 | 0.23 | 0.82 |      |
| Avail Cap(c_a), veh/h        | 1963 |      | 673  | 3137 | 462  |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh     | 13.2 | 0.0  | 13.1 | 3.8  | 28.5 | 0.0  |
| Incr Delay (d2), s/veh       | 1.1  | 0.0  | 5.8  | 0.0  | 7.3  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 10.6 | 0.0  | 5.9  | 1.5  | 8.2  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 14.3 | 0.0  | 18.9 | 3.8  | 35.8 | 0.0  |
| LnGrp LOS                    | B    |      | B    | A    | D    |      |
| Approach Vol, veh/h          | 1299 | A    |      | 946  | 252  | A    |
| Approach Delay, s/veh        | 14.3 |      |      | 9.6  | 35.8 |      |
| Approach LOS                 | B    |      |      | A    | D    |      |
| Timer - Assigned Phs         | 2    |      | 5    |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     | 54.6 |      | 13.5 |      | 41.2 | 16.7 |
| Change Period (Y+Rc), s      | 4.5  |      | 4.5  |      | 4.5  | 4.5  |
| Max Green Setting (Gmax), s  | 62.5 |      | 18.9 |      | 39.1 | 18.5 |
| Max Q Clear Time (g_c+I1), s | 6.2  |      | 8.0  |      | 21.7 | 11.7 |
| Green Ext Time (p_c), s      | 14.1 |      | 0.9  |      | 14.9 | 0.5  |

### Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 14.7 |
| HCM 6th LOS        | B    |

### Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.



## **B. DUMBBELL ROUNDABOUT**

## **SINGLE LANE ROUNDABOUT**

# MOVEMENT SUMMARY

 **Site: 101 [2025 AM, School (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|----------------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                 | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                        |      | [ Total veh/h | HV % | [ Total veh/h | HV % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: White Sulphur Elementary School |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 18                                     | R2   | 162           | 9.0  | 195           | 9.0  | 0.335     | 11.0        | LOS B            | 2.2               | 59.1      | 0.83      | 0.79                | 0.83             | 26.3        |
| Approach                               |      | 162           | 9.0  | 195           | 9.0  | 0.335     | 11.0        | LOS B            | 2.2               | 59.1      | 0.83      | 0.79                | 0.83             | 26.3        |
| East: Olod Cornelia Highway            |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 1u                                     | U    | 63            | 2.0  | 76            | 2.0  | 1.169     | 99.6        | LOS F            | 5798.8            | 147365.2  | 1.00      | 0.07                | 1.05             | 2.1         |
| 1                                      | L2   | 82            | 3.0  | 99            | 3.0  | 1.169     | 99.6        | LOS F            | 5798.8            | 147365.2  | 1.00      | 0.07                | 1.05             | 9.6         |
| 6                                      | T1   | 1129          | 2.0  | 1360          | 2.0  | 1.169     | 99.6        | LOS F            | 5798.8            | 147365.2  | 1.00      | 0.07                | 1.05             | 9.6         |
| Approach                               |      | 1274          | 2.1  | 1535          | 2.1  | 1.169     | 99.6        | LOS F            | 5798.8            | 147365.2  | 1.00      | 0.07                | 1.05             | 9.3         |
| West: Old Cornelia Highway             |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 2                                      | T1   | 516           | 4.0  | 622           | 4.0  | 0.665     | 13.1        | LOS B            | 7.4               | 190.6     | 0.72      | 0.47                | 0.72             | 22.7        |
| 12                                     | R2   | 77            | 3.0  | 93            | 3.0  | 0.665     | 13.0        | LOS B            | 7.4               | 190.6     | 0.72      | 0.47                | 0.72             | 30.9        |
| Approach                               |      | 593           | 3.9  | 714           | 3.9  | 0.665     | 13.1        | LOS B            | 7.4               | 190.6     | 0.72      | 0.47                | 0.72             | 24.0        |
| All Vehicles                           |      | 2029          | 3.1  | 2445          | 3.1  | 1.169     | 67.2        | LOS F            | 5798.8            | 147365.2  | 0.90      | 0.25                | 0.93             | 12.3        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Peanut (2 drives)\Existing.sip9

# MOVEMENT SUMMARY

 **Site: 101 [2025 AM, DW 1 (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 225           | 2.0  | 245           | 2.0  | 0.590     | 14.3        | LOS B            | 5.8               | 148.3     | 0.85      | 0.98                | 1.23             | 20.6        |
| 18                           | R2   | 188           | 2.0  | 204           | 2.0  | 0.590     | 14.3        | LOS B            | 5.8               | 148.3     | 0.85      | 0.98                | 1.23             | 29.0        |
| Approach                     |      | 413           | 2.0  | 449           | 2.0  | 0.590     | 14.3        | LOS B            | 5.8               | 148.3     | 0.85      | 0.98                | 1.23             | 25.0        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 6                            | T1   | 959           | 2.0  | 1042          | 2.0  | 1.119     | 87.2        | LOS F            | 73.8              | 1874.6    | 1.00      | 2.55                | 4.60             | 10.3        |
| Approach                     |      | 959           | 2.0  | 1042          | 2.0  | 1.119     | 87.2        | LOS F            | 73.8              | 1874.6    | 1.00      | 2.55                | 4.60             | 10.3        |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 5u                           | U    | 90            | 9.0  | 98            | 9.0  | 0.640     | 11.0        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 12.4        |
| 2                            | T1   | 508           | 7.0  | 552           | 7.0  | 0.640     | 11.0        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.8        |
| 12                           | R2   | 144           | 2.0  | 157           | 2.0  | 0.640     | 10.9        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 36.4        |
| Approach                     |      | 742           | 6.3  | 807           | 6.3  | 0.640     | 11.0        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 36.4        |
| All Vehicles                 |      | 2114          | 3.5  | 2298          | 3.5  | 1.119     | 46.2        | LOS E            | 73.8              | 1874.6    | 0.62      | 1.35                | 2.33             | 16.3        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Peanut (2 drives)\Existing.sip9

# MOVEMENT SUMMARY

 **Site: 101 [2025 PM, School (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|----------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                 | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                        |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 18                                     | R2   | 83            | 0.0    | 90            | 0.0    | 0.349     | 22.8        | LOS C            | 2.6               | 66.0      | 1.00      | 1.01                | 1.02             | 20.9        |
| Approach                               |      | 83            | 0.0    | 90            | 0.0    | 0.349     | 22.8        | LOS C            | 2.6               | 66.0      | 1.00      | 1.01                | 1.02             | 20.9        |
| East: Olod Cornelia Highway            |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1u                                     | U    | 208           | 2.0    | 226           | 2.0    | 0.700     | 12.3        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 8.9         |
| 1                                      | L2   | 27            | 0.0    | 29            | 0.0    | 0.700     | 12.3        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.0        |
| 6                                      | T1   | 611           | 2.0    | 664           | 2.0    | 0.700     | 12.3        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 37.5        |
| Approach                               |      | 846           | 1.9    | 920           | 1.9    | 0.700     | 12.3        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 31.3        |
| West: Old Cornelia Highway             |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                      | T1   | 1219          | 9.0    | 1325          | 9.0    | 1.395     | 198.6       | LOS F            | 159.2             | 4261.4    | 1.00      | 3.88                | 7.00             | 4.9         |
| 12                                     | R2   | 25            | 0.0    | 27            | 0.0    | 1.395     | 198.2       | LOS F            | 159.2             | 4261.4    | 1.00      | 3.88                | 7.00             | 8.8         |
| Approach                               |      | 1244          | 8.8    | 1352          | 8.8    | 1.395     | 198.6       | LOS F            | 159.2             | 4261.4    | 1.00      | 3.88                | 7.00             | 5.0         |
| All Vehicles                           |      | 2173          | 5.8    | 2362          | 5.8    | 1.395     | 119.4       | LOS F            | 159.2             | 4261.4    | 0.61      | 2.26                | 4.05             | 7.3         |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 Site: 101 [2025 PM, DW 1 (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 149           | 2.0    | 166           | 2.0    | 0.736     | 33.2        | LOS D            | 9.5               | 240.1     | 1.00      | 1.29                | 1.79             | 15.8        |
| 18                           | R2   | 124           | 2.0    | 138           | 2.0    | 0.736     | 33.2        | LOS D            | 9.5               | 240.1     | 1.00      | 1.29                | 1.79             | 23.4        |
| Approach                     |      | 273           | 2.0    | 303           | 2.0    | 0.736     | 33.2        | LOS D            | 9.5               | 240.1     | 1.00      | 1.29                | 1.79             | 19.6        |
| East: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 6                            | T1   | 666           | 1.0    | 740           | 1.0    | 0.691     | 14.0        | LOS B            | 9.6               | 240.7     | 0.77      | 0.61                | 0.88             | 25.6        |
| Approach                     |      | 666           | 1.0    | 740           | 1.0    | 0.691     | 14.0        | LOS B            | 9.6               | 240.7     | 0.77      | 0.61                | 0.88             | 25.6        |
| West: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5u                           | U    | 31            | 0.0    | 34            | 0.0    | 1.268     | 140.1       | LOS F            | 6479.8            | 163659.3  | 1.00      | 0.07                | 1.05             | 1.3         |
| 2                            | T1   | 1020          | 1.0    | 1133          | 1.0    | 1.268     | 140.2       | LOS F            | 6479.8            | 163659.3  | 1.00      | 0.07                | 1.05             | 7.2         |
| 12                           | R2   | 459           | 2.0    | 510           | 2.0    | 1.268     | 140.2       | LOS F            | 6479.8            | 163659.3  | 1.00      | 0.07                | 1.05             | 7.1         |
| Approach                     |      | 1510          | 1.3    | 1678          | 1.3    | 1.268     | 140.2       | LOS F            | 6479.8            | 163659.3  | 1.00      | 0.07                | 1.05             | 7.1         |
| All Vehicles                 |      | 2449          | 1.3    | 2721          | 1.3    | 1.268     | 93.9        | LOS F            | 6479.8            | 163659.3  | 0.94      | 0.35                | 1.08             | 10.0        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2030 AM, School (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|----------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                 | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                        |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 18                                     | R2   | 177           | 9.0    | 213           | 9.0    | 0.398     | 13.2        | LOS B            | 2.9               | 78.3      | 0.89      | 0.90                | 0.96             | 25.1        |
| Approach                               |      | 177           | 9.0    | 213           | 9.0    | 0.398     | 13.2        | LOS B            | 2.9               | 78.3      | 0.89      | 0.90                | 0.96             | 25.1        |
| East: Olod Cornelia Highway            |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1u                                     | U    | 81            | 2.0    | 98            | 2.0    | 1.281     | 145.6       | LOS F            | 6475.0            | 164550.1  | 1.00      | 0.07                | 1.05             | 1.5         |
| 1                                      | L2   | 94            | 3.0    | 113           | 3.0    | 1.281     | 145.6       | LOS F            | 6475.0            | 164550.1  | 1.00      | 0.07                | 1.05             | 7.1         |
| 6                                      | T1   | 1247          | 2.0    | 1502          | 2.0    | 1.281     | 145.6       | LOS F            | 6475.0            | 164550.1  | 1.00      | 0.07                | 1.05             | 7.1         |
| Approach                               |      | 1422          | 2.1    | 1713          | 2.1    | 1.281     | 145.6       | LOS F            | 6475.0            | 164550.1  | 1.00      | 0.07                | 1.05             | 6.8         |
| West: Old Cornelia Highway             |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                      | T1   | 567           | 4.0    | 683           | 4.0    | 0.726     | 15.2        | LOS C            | 10.9              | 279.9     | 0.80      | 0.60                | 0.89             | 21.8        |
| 12                                     | R2   | 83            | 3.0    | 100           | 3.0    | 0.726     | 15.2        | LOS C            | 10.9              | 279.9     | 0.80      | 0.60                | 0.89             | 30.0        |
| Approach                               |      | 650           | 3.9    | 783           | 3.9    | 0.726     | 15.2        | LOS C            | 10.9              | 279.9     | 0.80      | 0.60                | 0.89             | 23.1        |
| All Vehicles                           |      | 2249          | 3.1    | 2710          | 3.1    | 1.281     | 97.5        | LOS F            | 6475.0            | 164550.1  | 0.93      | 0.29                | 0.99             | 9.5         |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2030 AM, DW 1 (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 281           | 2.0  | 305           | 2.0  | 0.748     | 21.3        | LOS C            | 10.7              | 271.0     | 0.95      | 1.26                | 1.75             | 18.5        |
| 18                           | R2   | 236           | 2.0  | 257           | 2.0  | 0.748     | 21.3        | LOS C            | 10.7              | 271.0     | 0.95      | 1.26                | 1.75             | 26.6        |
| Approach                     |      | 517           | 2.0  | 562           | 2.0  | 0.748     | 21.3        | LOS C            | 10.7              | 271.0     | 0.95      | 1.26                | 1.75             | 22.7        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 6                            | T1   | 1044          | 2.0  | 1135          | 2.0  | 1.284     | 153.1       | LOS F            | 110.0             | 2793.0    | 1.00      | 3.53                | 6.86             | 6.7         |
| Approach                     |      | 1044          | 2.0  | 1135          | 2.0  | 1.284     | 153.1       | LOS F            | 110.0             | 2793.0    | 1.00      | 3.53                | 6.86             | 6.7         |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 5u                           | U    | 97            | 9.0  | 105           | 9.0  | 0.697     | 12.5        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 12.4        |
| 2                            | T1   | 546           | 7.0  | 593           | 7.0  | 0.697     | 12.5        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.8        |
| 12                           | R2   | 182           | 2.0  | 198           | 2.0  | 0.697     | 12.4        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 36.4        |
| Approach                     |      | 825           | 6.1  | 897           | 6.1  | 0.697     | 12.5        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 36.4        |
| All Vehicles                 |      | 2386          | 3.4  | 2593          | 3.4  | 1.284     | 75.9        | LOS F            | 110.0             | 2793.0    | 0.64      | 1.82                | 3.38             | 12.0        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2030 PM, School (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|----------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                 | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                        |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 18                                     | R2   | 95            | 0.0    | 103           | 0.0    | 0.399     | 24.8        | LOS C            | 3.2               | 79.9      | 1.00      | 1.04                | 1.11             | 20.2        |
| Approach                               |      | 95            | 0.0    | 103           | 0.0    | 0.399     | 24.8        | LOS C            | 3.2               | 79.9      | 1.00      | 1.04                | 1.11             | 20.2        |
| East: Olod Cornelia Highway            |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1u                                     | U    | 253           | 2.0    | 275           | 2.0    | 0.782     | 15.4        | LOS C            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 9.0         |
| 1                                      | L2   | 33            | 0.0    | 36            | 0.0    | 0.782     | 15.4        | LOS C            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 37.8        |
| 6                                      | T1   | 677           | 2.0    | 736           | 2.0    | 0.782     | 15.4        | LOS C            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 37.3        |
| Approach                               |      | 963           | 1.9    | 1047          | 1.9    | 0.782     | 15.4        | LOS C            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 30.8        |
| West: Old Cornelia Highway             |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                      | T1   | 1339          | 9.0    | 1455          | 9.0    | 1.563     | 272.5       | LOS F            | 201.5             | 5392.7    | 1.00      | 4.79                | 9.12             | 3.8         |
| 12                                     | R2   | 27            | 0.0    | 29            | 0.0    | 1.563     | 272.1       | LOS F            | 201.5             | 5392.7    | 1.00      | 4.79                | 9.12             | 6.8         |
| Approach                               |      | 1366          | 8.8    | 1485          | 8.8    | 1.563     | 272.5       | LOS F            | 201.5             | 5392.7    | 1.00      | 4.79                | 9.12             | 3.9         |
| All Vehicles                           |      | 2424          | 5.7    | 2635          | 5.7    | 1.563     | 160.6       | LOS F            | 201.5             | 5392.7    | 0.60      | 2.74                | 5.18             | 5.8         |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Peanut (2 drives)\Existing.sip9

# MOVEMENT SUMMARY

 **Site: 101 [2030 PM, DW 1 (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 185           | 2.0    | 206           | 2.0    | 0.868     | 47.2        | LOS E            | 15.1              | 383.0     | 1.00      | 1.49                | 2.33             | 13.4        |
| 18                           | R2   | 154           | 2.0    | 171           | 2.0    | 0.868     | 47.2        | LOS E            | 15.1              | 383.0     | 1.00      | 1.49                | 2.33             | 20.5        |
| Approach                     |      | 339           | 2.0    | 377           | 2.0    | 0.868     | 47.2        | LOS E            | 15.1              | 383.0     | 1.00      | 1.49                | 2.33             | 16.9        |
| East: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 6                            | T1   | 745           | 1.0    | 828           | 1.0    | 0.785     | 18.5        | LOS C            | 18.6              | 467.5     | 0.93      | 0.96                | 1.41             | 23.4        |
| Approach                     |      | 745           | 1.0    | 828           | 1.0    | 0.785     | 18.5        | LOS C            | 18.6              | 467.5     | 0.93      | 0.96                | 1.41             | 23.4        |
| West: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5u                           | U    | 33            | 0.0    | 37            | 0.0    | 1.392     | 192.9       | LOS F            | 5720.2            | 144505.1  | 1.00      | 0.06                | 1.04             | 1.0         |
| 2                            | T1   | 1097          | 1.0    | 1219          | 1.0    | 1.392     | 192.9       | LOS F            | 5720.2            | 144505.1  | 1.00      | 0.06                | 1.04             | 5.5         |
| 12                           | R2   | 557           | 2.0    | 619           | 2.0    | 1.392     | 192.9       | LOS F            | 5720.2            | 144505.1  | 1.00      | 0.06                | 1.04             | 5.5         |
| Approach                     |      | 1687          | 1.3    | 1874          | 1.3    | 1.392     | 192.9       | LOS F            | 5720.2            | 144505.1  | 1.00      | 0.06                | 1.04             | 5.4         |
| All Vehicles                 |      | 2771          | 1.3    | 3079          | 1.3    | 1.392     | 128.2       | LOS F            | 5720.2            | 144505.1  | 0.98      | 0.48                | 1.29             | 7.9         |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Peanut (2 drives)\Existing.sip9

# MOVEMENT SUMMARY

 **Site: 101 [2035 AM, School (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|----------------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                 | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                        |      | [ Total veh/h | HV % | [ Total veh/h | HV % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: White Sulphur Elementary School |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 18                                     | R2   | 194           | 9.0  | 234           | 9.0  | 0.478     | 16.4        | LOS C            | 4.1               | 110.3     | 0.96      | 1.05                | 1.18             | 23.5        |
| Approach                               |      | 194           | 9.0  | 234           | 9.0  | 0.478     | 16.4        | LOS C            | 4.1               | 110.3     | 0.96      | 1.05                | 1.18             | 23.5        |
| East: Olod Cornelia Highway            |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 1u                                     | U    | 99            | 2.0  | 119           | 2.0  | 1.393     | 193.3       | LOS F            | 4994.7            | 126934.5  | 1.00      | 0.06                | 1.03             | 1.2         |
| 1                                      | L2   | 109           | 3.0  | 131           | 3.0  | 1.393     | 193.3       | LOS F            | 4994.7            | 126934.5  | 1.00      | 0.06                | 1.03             | 5.6         |
| 6                                      | T1   | 1382          | 2.0  | 1665          | 2.0  | 1.393     | 193.3       | LOS F            | 4994.7            | 126934.5  | 1.00      | 0.06                | 1.03             | 5.6         |
| Approach                               |      | 1590          | 2.1  | 1916          | 2.1  | 1.393     | 193.3       | LOS F            | 4994.7            | 126934.5  | 1.00      | 0.06                | 1.03             | 5.4         |
| West: Old Cornelia Highway             |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 2                                      | T1   | 623           | 4.0  | 751           | 4.0  | 0.783     | 17.8        | LOS C            | 17.5              | 450.1     | 0.89      | 0.80                | 1.19             | 20.9        |
| 12                                     | R2   | 90            | 3.0  | 108           | 3.0  | 0.783     | 17.8        | LOS C            | 17.5              | 450.1     | 0.89      | 0.80                | 1.19             | 29.0        |
| Approach                               |      | 713           | 3.9  | 859           | 3.9  | 0.783     | 17.8        | LOS C            | 17.5              | 450.1     | 0.89      | 0.80                | 1.19             | 22.2        |
| All Vehicles                           |      | 2497          | 3.1  | 3008          | 3.1  | 1.393     | 129.5       | LOS F            | 4994.7            | 126934.5  | 0.97      | 0.35                | 1.09             | 7.6         |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2035 AM, DW 1 (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 346           | 2.0    | 376           | 2.0    | 0.928     | 40.8        | LOS E            | 23.2              | 588.9     | 1.00      | 1.72                | 2.88             | 14.4        |
| 18                           | R2   | 294           | 2.0    | 320           | 2.0    | 0.928     | 40.8        | LOS E            | 23.2              | 588.9     | 1.00      | 1.72                | 2.88             | 21.7        |
| Approach                     |      | 640           | 2.0    | 696           | 2.0    | 0.928     | 40.8        | LOS E            | 23.2              | 588.9     | 1.00      | 1.72                | 2.88             | 18.1        |
| East: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 6                            | T1   | 1138          | 2.0    | 1237          | 2.0    | 1.465     | 231.2       | LOS F            | 150.7             | 3828.6    | 1.00      | 4.42                | 9.06             | 4.7         |
| Approach                     |      | 1138          | 2.0    | 1237          | 2.0    | 1.465     | 231.2       | LOS F            | 150.7             | 3828.6    | 1.00      | 4.42                | 9.06             | 4.7         |
| West: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5u                           | U    | 105           | 9.0    | 114           | 9.0    | 0.752     | 14.3        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 12.3        |
| 2                            | T1   | 589           | 7.0    | 640           | 7.0    | 0.752     | 14.2        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.8        |
| 12                           | R2   | 222           | 2.0    | 241           | 2.0    | 0.752     | 14.1        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 36.5        |
| Approach                     |      | 916           | 6.0    | 996           | 6.0    | 0.752     | 14.2        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 36.4        |
| All Vehicles                 |      | 2694          | 3.4    | 2928          | 3.4    | 1.465     | 112.2       | LOS F            | 150.7             | 3828.6    | 0.66      | 2.28                | 4.51             | 9.1         |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2035 PM, School (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|----------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                 | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                        |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 18                                     | R2   | 112           | 0.0    | 122           | 0.0    | 0.478     | 28.7        | LOS D            | 4.2               | 104.8     | 1.00      | 1.09                | 1.24             | 18.9        |
| Approach                               |      | 112           | 0.0    | 122           | 0.0    | 0.478     | 28.7        | LOS D            | 4.2               | 104.8     | 1.00      | 1.09                | 1.24             | 18.9        |
| East: Olod Cornelia Highway            |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1u                                     | U    | 320           | 2.0    | 348           | 2.0    | 0.881     | 22.1        | LOS C            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 9.0         |
| 1                                      | L2   | 41            | 0.0    | 45            | 0.0    | 0.881     | 22.1        | LOS C            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 37.6        |
| 6                                      | T1   | 755           | 2.0    | 821           | 2.0    | 0.881     | 22.1        | LOS C            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 37.1        |
| Approach                               |      | 1116          | 1.9    | 1213          | 1.9    | 0.881     | 22.1        | LOS C            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 30.0        |
| West: Old Cornelia Highway             |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                      | T1   | 1488          | 9.0    | 1617          | 9.0    | 1.779     | 367.9       | LOS F            | 255.2             | 6830.0    | 1.00      | 5.83                | 11.72            | 2.9         |
| 12                                     | R2   | 30            | 0.0    | 33            | 0.0    | 1.779     | 367.5       | LOS F            | 255.2             | 6830.0    | 1.00      | 5.83                | 11.72            | 5.3         |
| Approach                               |      | 1518          | 8.8    | 1650          | 8.8    | 1.779     | 367.9       | LOS F            | 255.2             | 6830.0    | 1.00      | 5.83                | 11.72            | 3.0         |
| All Vehicles                           |      | 2746          | 5.7    | 2985          | 5.7    | 1.779     | 213.5       | LOS F            | 255.2             | 6830.0    | 0.59      | 3.27                | 6.53             | 4.6         |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2035 PM, DW 1 (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 228           | 2.0    | 253           | 2.0    | 0.992     | 69.2        | LOS F            | 25.4              | 646.3     | 1.00      | 1.82                | 3.18             | 10.9        |
| 18                           | R2   | 192           | 2.0    | 213           | 2.0    | 0.992     | 69.2        | LOS F            | 25.4              | 646.3     | 1.00      | 1.82                | 3.18             | 17.1        |
| Approach                     |      | 420           | 2.0    | 467           | 2.0    | 0.992     | 69.2        | LOS F            | 25.4              | 646.3     | 1.00      | 1.82                | 3.18             | 14.0        |
| East: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 6                            | T1   | 851           | 1.0    | 946           | 1.0    | 0.906     | 29.9        | LOS D            | 34.5              | 868.7     | 1.00      | 1.39                | 2.17             | 19.3        |
| Approach                     |      | 851           | 1.0    | 946           | 1.0    | 0.906     | 29.9        | LOS D            | 34.5              | 868.7     | 1.00      | 1.39                | 2.17             | 19.3        |
| West: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5u                           | U    | 36            | 0.0    | 40            | 0.0    | 1.540     | 257.5       | LOS F            | 4456.5            | 112612.5  | 1.00      | 0.06                | 1.03             | 0.7         |
| 2                            | T1   | 1183          | 1.0    | 1314          | 1.0    | 1.540     | 257.6       | LOS F            | 4456.5            | 112612.5  | 1.00      | 0.06                | 1.03             | 4.3         |
| 12                           | R2   | 700           | 2.0    | 778           | 2.0    | 1.540     | 257.6       | LOS F            | 4456.5            | 112612.5  | 1.00      | 0.06                | 1.03             | 4.2         |
| Approach                     |      | 1919          | 1.3    | 2132          | 1.3    | 1.540     | 257.6       | LOS F            | 4456.5            | 112612.5  | 1.00      | 0.06                | 1.03             | 4.2         |
| All Vehicles                 |      | 3190          | 1.3    | 3544          | 1.3    | 1.540     | 172.1       | LOS F            | 4456.5            | 112612.5  | 1.00      | 0.65                | 1.61             | 6.2         |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Peanut (2 drives)\Existing.sip9

## MULTILANE ROUNDABOUT

# MOVEMENT SUMMARY

 **Site: 101 [2025 AM, School (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|----------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                 | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                        |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 18                                     | R2   | 162           | 9.0    | 195           | 9.0    | 0.289     | 9.0         | LOS A            | 1.2               | 33.2      | 0.61      | 0.61                | 0.61             | 27.6        |
| Approach                               |      | 162           | 9.0    | 195           | 9.0    | 0.289     | 9.0         | LOS A            | 1.2               | 33.2      | 0.61      | 0.61                | 0.61             | 27.6        |
| East: Olod Cornelia Highway            |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1u                                     | U    | 63            | 2.0    | 76            | 2.0    | 0.496     | 7.3         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 19.4        |
| 1                                      | L2   | 82            | 3.0    | 99            | 3.0    | 0.496     | 7.4         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.6        |
| 6                                      | T1   | 1129          | 2.0    | 1360          | 2.0    | 0.496     | 7.0         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 39.2        |
| Approach                               |      | 1274          | 2.1    | 1535          | 2.1    | 0.496     | 7.1         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.7        |
| West: Old Cornelia Highway             |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                      | T1   | 516           | 4.0    | 622           | 4.0    | 0.302     | 5.9         | LOS A            | 1.5               | 38.1      | 0.34      | 0.21                | 0.34             | 26.1        |
| 12                                     | R2   | 77            | 3.0    | 93            | 3.0    | 0.302     | 5.7         | LOS A            | 1.5               | 38.1      | 0.34      | 0.21                | 0.34             | 34.1        |
| Approach                               |      | 593           | 3.9    | 714           | 3.9    | 0.302     | 5.9         | LOS A            | 1.5               | 38.1      | 0.34      | 0.21                | 0.34             | 27.4        |
| All Vehicles                           |      | 2029          | 3.1    | 2445          | 3.1    | 0.496     | 6.9         | LOS A            | 1.5               | 38.1      | 0.15      | 0.11                | 0.15             | 33.3        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Peanut (2 drives)\Four lane.sip9

# MOVEMENT SUMMARY

 **Site: 101 [2025 AM, DW 1 (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 225           | 2.0  | 245           | 2.0  | 0.246     | 6.0         | LOS A            | 1.0               | 25.2      | 0.51      | 0.48                | 0.51             | 26.3        |
| 18                           | R2   | 188           | 2.0  | 204           | 2.0  | 0.234     | 6.5         | LOS A            | 0.9               | 23.3      | 0.53      | 0.50                | 0.53             | 33.6        |
| Approach                     |      | 413           | 2.0  | 449           | 2.0  | 0.246     | 6.2         | LOS A            | 1.0               | 25.2      | 0.52      | 0.49                | 0.52             | 30.1        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 6                            | T1   | 959           | 2.0  | 1042          | 2.0  | 0.495     | 9.2         | LOS A            | 3.3               | 83.9      | 0.61      | 0.50                | 0.61             | 28.1        |
| Approach                     |      | 959           | 2.0  | 1042          | 2.0  | 0.495     | 9.2         | LOS A            | 3.3               | 83.9      | 0.61      | 0.50                | 0.61             | 28.1        |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 5u                           | U    | 90            | 9.0  | 98            | 9.0  | 0.271     | 5.0         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 14.1        |
| 2                            | T1   | 508           | 7.0  | 552           | 7.0  | 0.271     | 4.7         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.6        |
| 12                           | R2   | 144           | 2.0  | 157           | 2.0  | 0.271     | 4.4         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 37.3        |
| Approach                     |      | 742           | 6.3  | 807           | 6.3  | 0.271     | 4.7         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 36.5        |
| All Vehicles                 |      | 2114          | 3.5  | 2298          | 3.5  | 0.495     | 7.1         | LOS A            | 3.3               | 83.9      | 0.38      | 0.32                | 0.38             | 30.8        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Peanut (2 drives)\Four lane.sip9

# MOVEMENT SUMMARY

 **Site: 101 [2025 PM, School (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|----------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                 | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                        |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 18                                     | R2   | 83            | 0.0    | 90            | 0.0    | 0.210     | 11.7        | LOS B            | 1.0               | 24.0      | 0.78      | 0.78                | 0.78             | 26.0        |
| Approach                               |      | 83            | 0.0    | 90            | 0.0    | 0.210     | 11.7        | LOS B            | 1.0               | 24.0      | 0.78      | 0.78                | 0.78             | 26.0        |
| East: Olod Cornelia Highway            |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1u                                     | U    | 208           | 2.0    | 226           | 2.0    | 0.297     | 5.0         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 9.8         |
| 1                                      | L2   | 27            | 0.0    | 29            | 0.0    | 0.297     | 4.9         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 35.8        |
| 6                                      | T1   | 611           | 2.0    | 664           | 2.0    | 0.297     | 4.7         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.5        |
| Approach                               |      | 846           | 1.9    | 920           | 1.9    | 0.297     | 4.8         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 31.4        |
| West: Old Cornelia Highway             |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                      | T1   | 1219          | 9.0    | 1325          | 9.0    | 0.637     | 12.4        | LOS B            | 6.9               | 184.5     | 0.61      | 0.56                | 0.78             | 18.2        |
| 12                                     | R2   | 25            | 0.0    | 27            | 0.0    | 0.637     | 11.8        | LOS B            | 6.7               | 179.0     | 0.60      | 0.55                | 0.76             | 31.3        |
| Approach                               |      | 1244          | 8.8    | 1352          | 8.8    | 0.637     | 12.3        | LOS B            | 6.9               | 184.5     | 0.60      | 0.56                | 0.78             | 18.5        |
| All Vehicles                           |      | 2173          | 5.8    | 2362          | 5.8    | 0.637     | 9.4         | LOS A            | 6.9               | 184.5     | 0.38      | 0.35                | 0.48             | 21.8        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2025 PM, DW 1 (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 149           | 2.0  | 166           | 2.0  | 0.199     | 6.4         | LOS A            | 0.9               | 21.7      | 0.63      | 0.62                | 0.63             | 26.2        |
| 18                           | R2   | 124           | 2.0  | 138           | 2.0  | 0.201     | 7.6         | LOS A            | 0.8               | 20.9      | 0.64      | 0.64                | 0.64             | 33.1        |
| Approach                     |      | 273           | 2.0  | 303           | 2.0  | 0.201     | 6.9         | LOS A            | 0.9               | 21.7      | 0.63      | 0.63                | 0.63             | 29.8        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 6                            | T1   | 666           | 1.0  | 740           | 1.0  | 0.314     | 6.0         | LOS A            | 1.8               | 45.8      | 0.41      | 0.27                | 0.41             | 30.2        |
| Approach                     |      | 666           | 1.0  | 740           | 1.0  | 0.314     | 6.0         | LOS A            | 1.8               | 45.8      | 0.41      | 0.27                | 0.41             | 30.2        |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 5u                           | U    | 31            | 0.0  | 34            | 0.0  | 0.538     | 7.9         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 14.4        |
| 2                            | T1   | 1020          | 1.0  | 1133          | 1.0  | 0.538     | 7.7         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 39.8        |
| 12                           | R2   | 459           | 2.0  | 510           | 2.0  | 0.538     | 7.4         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 37.3        |
| Approach                     |      | 1510          | 1.3  | 1678          | 1.3  | 0.538     | 7.6         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.7        |
| All Vehicles                 |      | 2449          | 1.3  | 2721          | 1.3  | 0.538     | 7.1         | LOS A            | 1.8               | 45.8      | 0.18      | 0.14                | 0.18             | 34.6        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2030 AM, School (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|----------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                 | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                        |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 18                                     | R2   | 177           | 9.0    | 213           | 9.0    | 0.323     | 9.7         | LOS A            | 1.4               | 38.5      | 0.65      | 0.65                | 0.66             | 27.2        |
| Approach                               |      | 177           | 9.0    | 213           | 9.0    | 0.323     | 9.7         | LOS A            | 1.4               | 38.5      | 0.65      | 0.65                | 0.66             | 27.2        |
| East: Olod Cornelia Highway            |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1u                                     | U    | 81            | 2.0    | 98            | 2.0    | 0.546     | 8.1         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 19.2        |
| 1                                      | L2   | 94            | 3.0    | 113           | 3.0    | 0.546     | 8.1         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.4        |
| 6                                      | T1   | 1247          | 2.0    | 1502          | 2.0    | 0.546     | 7.7         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 39.1        |
| Approach                               |      | 1422          | 2.1    | 1713          | 2.1    | 0.546     | 7.8         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.6        |
| West: Old Cornelia Highway             |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                      | T1   | 567           | 4.0    | 683           | 4.0    | 0.334     | 6.3         | LOS A            | 1.7               | 43.8      | 0.38      | 0.26                | 0.38             | 25.8        |
| 12                                     | R2   | 83            | 3.0    | 100           | 3.0    | 0.334     | 6.1         | LOS A            | 1.7               | 43.8      | 0.38      | 0.25                | 0.38             | 33.9        |
| Approach                               |      | 650           | 3.9    | 783           | 3.9    | 0.334     | 6.3         | LOS A            | 1.7               | 43.8      | 0.38      | 0.26                | 0.38             | 27.2        |
| All Vehicles                           |      | 2249          | 3.1    | 2710          | 3.1    | 0.546     | 7.5         | LOS A            | 1.7               | 43.8      | 0.16      | 0.13                | 0.16             | 33.1        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2030 AM, DW 1 (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 281           | 2.0    | 305           | 2.0    | 0.304     | 6.6         | LOS A            | 1.3               | 32.7      | 0.55      | 0.52                | 0.55             | 26.0        |
| 18                           | R2   | 236           | 2.0    | 257           | 2.0    | 0.295     | 7.3         | LOS A            | 1.2               | 30.9      | 0.56      | 0.55                | 0.56             | 33.2        |
| Approach                     |      | 517           | 2.0    | 562           | 2.0    | 0.304     | 7.0         | LOS A            | 1.3               | 32.7      | 0.55      | 0.53                | 0.55             | 29.8        |
| East: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 6                            | T1   | 1044          | 2.0    | 1135          | 2.0    | 0.563     | 10.9        | LOS B            | 5.3               | 134.2     | 0.70      | 0.68                | 0.88             | 27.1        |
| Approach                     |      | 1044          | 2.0    | 1135          | 2.0    | 0.563     | 10.9        | LOS B            | 5.3               | 134.2     | 0.70      | 0.68                | 0.88             | 27.1        |
| West: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5u                           | U    | 97            | 9.0    | 105           | 9.0    | 0.298     | 5.2         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 14.1        |
| 2                            | T1   | 546           | 7.0    | 593           | 7.0    | 0.298     | 4.9         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.6        |
| 12                           | R2   | 182           | 2.0    | 198           | 2.0    | 0.298     | 4.6         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 37.3        |
| Approach                     |      | 825           | 6.1    | 897           | 6.1    | 0.298     | 4.9         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 36.5        |
| All Vehicles                 |      | 2386          | 3.4    | 2593          | 3.4    | 0.563     | 8.0         | LOS A            | 5.3               | 134.2     | 0.43      | 0.42                | 0.51             | 30.2        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Peanut (2 drives)\Four lane.sip9

# MOVEMENT SUMMARY

 **Site: 101 [2030 PM, School (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|----------------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                 | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                        |      | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: White Sulphur Elementary School |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 18                                     | R2   | 95            | 0.0  | 103           | 0.0  | 0.276     | 14.7        | LOS B            | 1.3               | 33.6      | 0.84      | 0.84                | 0.85             | 24.4        |
| Approach                               |      | 95            | 0.0  | 103           | 0.0  | 0.276     | 14.7        | LOS B            | 1.3               | 33.6      | 0.84      | 0.84                | 0.85             | 24.4        |
| East: Olod Cornelia Highway            |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 1u                                     | U    | 253           | 2.0  | 275           | 2.0  | 0.333     | 5.3         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 9.8         |
| 1                                      | L2   | 33            | 0.0  | 36            | 0.0  | 0.333     | 5.3         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 35.5        |
| 6                                      | T1   | 677           | 2.0  | 736           | 2.0  | 0.333     | 5.0         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.5        |
| Approach                               |      | 963           | 1.9  | 1047          | 1.9  | 0.333     | 5.1         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 30.9        |
| West: Old Cornelia Highway             |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 2                                      | T1   | 1339          | 9.0  | 1455          | 9.0  | 0.715     | 15.3        | LOS C            | 11.1              | 297.1     | 0.72      | 0.81                | 1.16             | 17.5        |
| 12                                     | R2   | 27            | 0.0  | 29            | 0.0  | 0.715     | 14.5        | LOS B            | 11.1              | 297.1     | 0.71      | 0.79                | 1.14             | 30.1        |
| Approach                               |      | 1366          | 8.8  | 1485          | 8.8  | 0.715     | 15.2        | LOS C            | 11.1              | 297.1     | 0.72      | 0.81                | 1.16             | 17.8        |
| All Vehicles                           |      | 2424          | 5.7  | 2635          | 5.7  | 0.715     | 11.2        | LOS B            | 11.1              | 297.1     | 0.44      | 0.49                | 0.69             | 21.1        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Peanut (2 drives)\Four lane.sip9

# MOVEMENT SUMMARY

 **Site: 101 [2030 PM, DW 1 (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 185           | 2.0    | 206           | 2.0    | 0.250     | 7.1         | LOS A            | 1.1               | 29.1      | 0.67      | 0.67                | 0.67             | 25.8        |
| 18                           | R2   | 154           | 2.0    | 171           | 2.0    | 0.260     | 8.7         | LOS A            | 1.1               | 28.5      | 0.68      | 0.68                | 0.68             | 32.5        |
| Approach                     |      | 339           | 2.0    | 377           | 2.0    | 0.260     | 7.8         | LOS A            | 1.1               | 29.1      | 0.67      | 0.67                | 0.67             | 29.3        |
| East: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 6                            | T1   | 745           | 1.0    | 828           | 1.0    | 0.359     | 6.7         | LOS A            | 2.2               | 55.5      | 0.47      | 0.33                | 0.47             | 29.8        |
| Approach                     |      | 745           | 1.0    | 828           | 1.0    | 0.359     | 6.7         | LOS A            | 2.2               | 55.5      | 0.47      | 0.33                | 0.47             | 29.8        |
| West: Old Cornelia Highway   |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5u                           | U    | 33            | 0.0    | 37            | 0.0    | 0.593     | 8.8         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 14.4        |
| 2                            | T1   | 1097          | 1.0    | 1219          | 1.0    | 0.593     | 8.6         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 39.8        |
| 12                           | R2   | 557           | 2.0    | 619           | 2.0    | 0.593     | 8.2         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 37.3        |
| Approach                     |      | 1687          | 1.3    | 1874          | 1.3    | 0.593     | 8.5         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.7        |
| All Vehicles                 |      | 2771          | 1.3    | 3079          | 1.3    | 0.593     | 7.9         | LOS A            | 2.2               | 55.5      | 0.21      | 0.17                | 0.21             | 34.2        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2035 AM, School (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance           |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|----------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                 | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                        |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 18                                     | R2   | 194           | 9.0    | 234           | 9.0    | 0.358     | 10.4        | LOS B            | 1.8               | 46.9      | 0.68      | 0.71                | 0.77             | 26.8        |
| Approach                               |      | 194           | 9.0    | 234           | 9.0    | 0.358     | 10.4        | LOS B            | 1.8               | 46.9      | 0.68      | 0.71                | 0.77             | 26.8        |
| East: Olod Cornelia Highway            |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1u                                     | U    | 99            | 2.0    | 119           | 2.0    | 0.598     | 8.9         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 19.2        |
| 1                                      | L2   | 109           | 3.0    | 131           | 3.0    | 0.598     | 8.9         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.3        |
| 6                                      | T1   | 1382          | 2.0    | 1665          | 2.0    | 0.598     | 8.5         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 39.1        |
| Approach                               |      | 1590          | 2.1    | 1916          | 2.1    | 0.598     | 8.5         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.4        |
| West: Old Cornelia Highway             |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                      | T1   | 623           | 4.0    | 751           | 4.0    | 0.367     | 6.7         | LOS A            | 2.0               | 50.2      | 0.42      | 0.30                | 0.42             | 25.6        |
| 12                                     | R2   | 90            | 3.0    | 108           | 3.0    | 0.367     | 6.5         | LOS A            | 2.0               | 50.2      | 0.42      | 0.29                | 0.42             | 33.7        |
| Approach                               |      | 713           | 3.9    | 859           | 3.9    | 0.367     | 6.7         | LOS A            | 2.0               | 50.2      | 0.42      | 0.30                | 0.42             | 27.0        |
| All Vehicles                           |      | 2497          | 3.1    | 3008          | 3.1    | 0.598     | 8.1         | LOS A            | 2.0               | 50.2      | 0.17      | 0.14                | 0.18             | 33.0        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2035 AM, DW 1 (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 346           | 2.0  | 376           | 2.0  | 0.365     | 7.3         | LOS A            | 1.6               | 41.7      | 0.58      | 0.57                | 0.58             | 25.7        |
| 18                           | R2   | 294           | 2.0  | 320           | 2.0  | 0.368     | 8.4         | LOS A            | 1.7               | 43.2      | 0.60      | 0.62                | 0.65             | 32.7        |
| Approach                     |      | 640           | 2.0  | 696           | 2.0  | 0.368     | 7.8         | LOS A            | 1.7               | 43.2      | 0.59      | 0.59                | 0.62             | 29.4        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 6                            | T1   | 1138          | 2.0  | 1237          | 2.0  | 0.639     | 13.3        | LOS B            | 7.8               | 198.1     | 0.80      | 0.89                | 1.18             | 25.8        |
| Approach                     |      | 1138          | 2.0  | 1237          | 2.0  | 0.639     | 13.3        | LOS B            | 7.8               | 198.1     | 0.80      | 0.89                | 1.18             | 25.8        |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 5u                           | U    | 105           | 9.0  | 114           | 9.0  | 0.323     | 5.4         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 14.1        |
| 2                            | T1   | 589           | 7.0  | 640           | 7.0  | 0.323     | 5.1         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.6        |
| 12                           | R2   | 222           | 2.0  | 241           | 2.0  | 0.323     | 4.8         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 37.3        |
| Approach                     |      | 916           | 6.0  | 996           | 6.0  | 0.323     | 5.1         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 36.5        |
| All Vehicles                 |      | 2694          | 3.4  | 2928          | 3.4  | 0.639     | 9.2         | LOS A            | 7.8               | 198.1     | 0.48      | 0.52                | 0.65             | 29.4        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2035 PM, School (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|----------------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                 | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                        |      | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: White Sulphur Elementary School |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 18                                     | R2   | 112           | 0.0  | 122           | 0.0  | 0.399     | 21.5        | LOS C            | 2.3               | 57.2      | 0.90      | 0.97                | 1.13             | 21.5        |
| Approach                               |      | 112           | 0.0  | 122           | 0.0  | 0.399     | 21.5        | LOS C            | 2.3               | 57.2      | 0.90      | 0.97                | 1.13             | 21.5        |
| East: Olod Cornelia Highway            |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 1u                                     | U    | 320           | 2.0  | 348           | 2.0  | 0.378     | 5.8         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 9.9         |
| 1                                      | L2   | 41            | 0.0  | 45            | 0.0  | 0.378     | 5.7         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 35.1        |
| 6                                      | T1   | 755           | 2.0  | 821           | 2.0  | 0.378     | 5.4         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.6        |
| Approach                               |      | 1116          | 1.9  | 1213          | 1.9  | 0.378     | 5.5         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 30.1        |
| West: Old Cornelia Highway             |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 2                                      | T1   | 1488          | 9.0  | 1617          | 9.0  | 0.818     | 21.4        | LOS C            | 18.2              | 487.3     | 0.87      | 1.19                | 1.77             | 16.1        |
| 12                                     | R2   | 30            | 0.0  | 33            | 0.0  | 0.818     | 20.2        | LOS C            | 18.2              | 487.3     | 0.86      | 1.16                | 1.74             | 28.0        |
| Approach                               |      | 1518          | 8.8  | 1650          | 8.8  | 0.818     | 21.4        | LOS C            | 18.2              | 487.3     | 0.87      | 1.19                | 1.77             | 16.4        |
| All Vehicles                           |      | 2746          | 5.7  | 2985          | 5.7  | 0.818     | 14.9        | LOS B            | 18.2              | 487.3     | 0.52      | 0.70                | 1.03             | 19.8        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

 **Site: 101 [2035 PM, DW 1 (Site Folder: General)]**

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1           |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3                            | L2   | 228           | 2.0  | 253           | 2.0  | 0.313     | 8.0         | LOS A            | 1.6               | 39.8      | 0.73      | 0.73                | 0.73             | 25.4        |
| 18                           | R2   | 192           | 2.0  | 213           | 2.0  | 0.341     | 10.4        | LOS B            | 1.7               | 42.6      | 0.73      | 0.76                | 0.82             | 31.7        |
| Approach                     |      | 420           | 2.0  | 467           | 2.0  | 0.341     | 9.1         | LOS A            | 1.7               | 42.6      | 0.73      | 0.74                | 0.77             | 28.7        |
| East: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 6                            | T1   | 851           | 1.0  | 946           | 1.0  | 0.418     | 7.6         | LOS A            | 2.8               | 69.9      | 0.55      | 0.41                | 0.55             | 29.2        |
| Approach                     |      | 851           | 1.0  | 946           | 1.0  | 0.418     | 7.6         | LOS A            | 2.8               | 69.9      | 0.55      | 0.41                | 0.55             | 29.2        |
| West: Old Cornelia Highway   |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 5u                           | U    | 36            | 0.0  | 40            | 0.0  | 0.661     | 10.2        | LOS B            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 14.4        |
| 2                            | T1   | 1183          | 1.0  | 1314          | 1.0  | 0.661     | 10.0        | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 39.8        |
| 12                           | R2   | 700           | 2.0  | 778           | 2.0  | 0.661     | 9.4         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 37.4        |
| Approach                     |      | 1919          | 1.3  | 2132          | 1.3  | 0.661     | 9.8         | LOS A            | 0.0               | 0.0       | 0.00      | 0.00                | 0.00             | 38.6        |
| All Vehicles                 |      | 3190          | 1.3  | 3544          | 1.3  | 0.661     | 9.1         | LOS A            | 2.8               | 69.9      | 0.24      | 0.21                | 0.25             | 33.7        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\21-1015 Sussex TIS - Rochester\STUDIES\Roundabout\Peanut (2 drives)\Four lane.sip9

## **C. ELLIPTICAL ROUNDABOUT**

## **SINGLE LANE ROUNDABOUT**

# MOVEMENT SUMMARY

 Site: 101 [2025 AM (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance               |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|--------------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                     | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                            |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1                         |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.686     | 20.6        | LOS C            | 8.5               | 214.7     | 0.98      | 1.22                | 1.60             | 33.7        |
| 3                                          | L2   | 210           | 2.0    | 228           | 2.0    | 0.686     | 20.8        | LOS C            | 8.5               | 214.7     | 0.98      | 1.22                | 1.60             | 31.6        |
| 18                                         | R2   | 185           | 2.0    | 201           | 2.0    | 0.686     | 20.8        | LOS C            | 8.5               | 214.7     | 0.98      | 1.22                | 1.60             | 28.2        |
| 18b                                        | R3   | 1             | 0.0    | 1             | 0.0    | 0.686     | 20.6        | LOS C            | 8.5               | 214.7     | 0.98      | 1.22                | 1.60             | 27.4        |
| Approach                                   |      | 397           | 2.0    | 432           | 2.0    | 0.686     | 20.8        | LOS C            | 8.5               | 214.7     | 0.98      | 1.22                | 1.60             | 29.9        |
| SouthEast: Dana Drive                      |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3bx                                        | L3   | 1             | 0.0    | 1             | 0.0    | 0.042     | 7.0         | LOS A            | 0.3               | 8.2       | 0.94      | 0.72                | 0.94             | 41.8        |
| 3x                                         | L2   | 1             | 0.0    | 1             | 0.0    | 0.042     | 7.0         | LOS A            | 0.3               | 8.2       | 0.94      | 0.72                | 0.94             | 40.5        |
| 3ax                                        | L1   | 15            | 0.0    | 16            | 0.0    | 0.042     | 7.0         | LOS A            | 0.3               | 8.2       | 0.94      | 0.72                | 0.94             | 38.2        |
| 18bx                                       | R3   | 3             | 33.0   | 3             | 33.0   | 0.042     | 10.4        | LOS B            | 0.3               | 8.2       | 0.94      | 0.72                | 0.94             | 32.7        |
| Approach                                   |      | 20            | 5.0    | 22            | 5.0    | 0.042     | 7.5         | LOS A            | 0.3               | 8.2       | 0.94      | 0.72                | 0.94             | 37.5        |
| East: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 1.027     | 55.3        | LOS F            | 55.4              | 1408.7    | 1.00      | 2.05                | 3.51             | 23.0        |
| 1                                          | L2   | 62            | 2.0    | 67            | 2.0    | 1.027     | 55.4        | LOS F            | 55.4              | 1408.7    | 1.00      | 2.05                | 3.51             | 23.1        |
| 1a                                         | L1   | 82            | 3.0    | 99            | 3.0    | 1.027     | 55.4        | LOS F            | 55.4              | 1408.7    | 1.00      | 2.05                | 3.51             | 22.7        |
| 6                                          | T1   | 814           | 2.0    | 885           | 2.0    | 1.027     | 55.4        | LOS F            | 55.4              | 1408.7    | 1.00      | 2.05                | 3.51             | 20.5        |
| Approach                                   |      | 959           | 2.1    | 1052          | 2.1    | 1.027     | 55.4        | LOS F            | 55.4              | 1408.7    | 1.00      | 2.05                | 3.51             | 20.9        |
| West: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                          | T1   | 435           | 4.0    | 524           | 4.0    | 0.603     | 10.7        | LOS B            | 6.1               | 157.8     | 0.66      | 0.43                | 0.66             | 34.2        |
| 12a                                        | R1   | 11            | 11.0   | 12            | 11.0   | 0.603     | 10.9        | LOS B            | 6.1               | 157.8     | 0.66      | 0.43                | 0.66             | 33.7        |
| 12                                         | R2   | 70            | 2.0    | 76            | 2.0    | 0.603     | 10.6        | LOS B            | 6.1               | 157.8     | 0.66      | 0.43                | 0.66             | 33.8        |
| 12b                                        | R3   | 77            | 3.0    | 93            | 3.0    | 0.603     | 10.6        | LOS B            | 6.1               | 157.8     | 0.66      | 0.43                | 0.66             | 33.1        |
| Approach                                   |      | 593           | 3.8    | 705           | 3.8    | 0.603     | 10.7        | LOS B            | 6.1               | 157.8     | 0.66      | 0.43                | 0.66             | 34.0        |
| SouthWest: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5bx                                        | L3   | 90            | 9.0    | 108           | 9.0    | 0.240     | 7.0         | LOS A            | 1.7               | 45.6      | 0.79      | 0.67                | 0.79             | 38.0        |
| 12ax                                       | R1   | 72            | 10.0   | 87            | 10.0   | 0.240     | 7.0         | LOS A            | 1.7               | 45.6      | 0.79      | 0.67                | 0.79             | 33.7        |
| 12x                                        | R2   | 1             | 0.0    | 1             | 0.0    | 0.240     | 6.5         | LOS A            | 1.7               | 45.6      | 0.79      | 0.67                | 0.79             | 33.0        |
| 12bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.240     | 6.5         | LOS A            | 1.7               | 45.6      | 0.79      | 0.67                | 0.79             | 32.8        |
| Approach                                   |      | 164           | 9.3    | 198           | 9.3    | 0.240     | 7.0         | LOS A            | 1.7               | 45.6      | 0.79      | 0.67                | 0.79             | 35.9        |
| All Vehicles                               |      | 2133          | 3.1    | 2408          | 3.2    | 1.027     | 31.7        | LOS D            | 55.4              | 1408.7    | 0.88      | 1.30                | 2.09             | 26.3        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).



# MOVEMENT SUMMARY

 Site: 101 [2025 PM (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance               |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|--------------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                     | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                            |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1                         |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.755     | 36.6        | LOS E            | 9.6               | 244.3     | 1.00      | 1.31                | 1.86             | 27.7        |
| 3                                          | L2   | 141           | 2.0    | 153           | 2.0    | 0.755     | 36.8        | LOS E            | 9.6               | 244.3     | 1.00      | 1.31                | 1.86             | 26.2        |
| 18                                         | R2   | 124           | 2.0    | 135           | 2.0    | 0.755     | 36.8        | LOS E            | 9.6               | 244.3     | 1.00      | 1.31                | 1.86             | 23.8        |
| 18b                                        | R3   | 1             | 0.0    | 1             | 0.0    | 0.755     | 36.6        | LOS E            | 9.6               | 244.3     | 1.00      | 1.31                | 1.86             | 23.2        |
| Approach                                   |      | 267           | 2.0    | 290           | 2.0    | 0.755     | 36.8        | LOS E            | 9.6               | 244.3     | 1.00      | 1.31                | 1.86             | 25.0        |
| SouthEast: Dana Drive                      |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3bx                                        | L3   | 1             | 0.0    | 1             | 0.0    | 0.031     | 9.5         | LOS A            | 0.3               | 6.5       | 1.00      | 0.74                | 1.00             | 40.3        |
| 3x                                         | L2   | 1             | 0.0    | 1             | 0.0    | 0.031     | 9.5         | LOS A            | 0.3               | 6.5       | 1.00      | 0.74                | 1.00             | 39.2        |
| 3ax                                        | L1   | 8             | 0.0    | 9             | 0.0    | 0.031     | 9.5         | LOS A            | 0.3               | 6.5       | 1.00      | 0.74                | 1.00             | 37.0        |
| 18bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.031     | 9.5         | LOS A            | 0.3               | 6.5       | 1.00      | 0.74                | 1.00             | 32.0        |
| Approach                                   |      | 11            | 0.0    | 12            | 0.0    | 0.031     | 9.5         | LOS A            | 0.3               | 6.5       | 1.00      | 0.74                | 1.00             | 37.0        |
| East: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.623     | 11.0        | LOS B            | 6.2               | 155.6     | 0.68      | 0.47                | 0.68             | 39.4        |
| 1                                          | L2   | 208           | 2.0    | 226           | 2.0    | 0.623     | 11.1        | LOS B            | 6.2               | 155.6     | 0.68      | 0.47                | 0.68             | 39.4        |
| 1a                                         | L1   | 27            | 0.0    | 29            | 0.0    | 0.623     | 11.0        | LOS B            | 6.2               | 155.6     | 0.68      | 0.47                | 0.68             | 38.7        |
| 6                                          | T1   | 431           | 1.0    | 479           | 1.0    | 0.623     | 11.1        | LOS B            | 6.2               | 155.6     | 0.68      | 0.47                | 0.68             | 32.8        |
| Approach                                   |      | 667           | 1.3    | 735           | 1.3    | 0.623     | 11.1        | LOS B            | 6.2               | 155.6     | 0.68      | 0.47                | 0.68             | 34.8        |
| West: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                          | T1   | 968           | 9.0    | 1052          | 9.0    | 1.293     | 154.0       | LOS F            | 138.0             | 3657.6    | 1.00      | 3.41                | 5.99             | 11.0        |
| 12a                                        | R1   | 15            | 8.0    | 17            | 8.0    | 1.293     | 154.0       | LOS F            | 138.0             | 3657.6    | 1.00      | 3.41                | 5.99             | 11.0        |
| 12                                         | R2   | 236           | 2.0    | 257           | 2.0    | 1.293     | 153.8       | LOS F            | 138.0             | 3657.6    | 1.00      | 3.41                | 5.99             | 11.0        |
| 12b                                        | R3   | 25            | 0.0    | 27            | 0.0    | 1.293     | 153.7       | LOS F            | 138.0             | 3657.6    | 1.00      | 3.41                | 5.99             | 10.9        |
| Approach                                   |      | 1244          | 7.5    | 1353          | 7.5    | 1.293     | 154.0       | LOS F            | 138.0             | 3657.6    | 1.00      | 3.41                | 5.99             | 11.0        |
| SouthWest: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5bx                                        | L3   | 31            | 0.0    | 34            | 0.0    | 0.286     | 16.9        | LOS C            | 2.6               | 65.3      | 1.00      | 0.92                | 1.00             | 34.8        |
| 12ax                                       | R1   | 52            | 0.0    | 57            | 0.0    | 0.286     | 16.9        | LOS C            | 2.6               | 65.3      | 1.00      | 0.92                | 1.00             | 30.2        |
| 12x                                        | R2   | 1             | 0.0    | 1             | 0.0    | 0.286     | 16.9        | LOS C            | 2.6               | 65.3      | 1.00      | 0.92                | 1.00             | 29.6        |
| 12bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.286     | 16.9        | LOS C            | 2.6               | 65.3      | 1.00      | 0.92                | 1.00             | 29.4        |
| Approach                                   |      | 85            | 0.0    | 92            | 0.0    | 0.286     | 16.9        | LOS C            | 2.6               | 65.3      | 1.00      | 0.92                | 1.00             | 31.7        |
| All Vehicles                               |      | 2274          | 4.7    | 2483          | 4.7    | 1.293     | 92.1        | LOS F            | 138.0             | 3657.6    | 0.91      | 2.19                | 3.72             | 15.9        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

# MOVEMENT SUMMARY

 Site: 101 [2030 AM (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance               |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|--------------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                     | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                            |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1                         |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.896     | 41.2        | LOS E            | 18.8              | 476.9     | 1.00      | 1.60                | 2.58             | 26.3        |
| 3                                          | L2   | 265           | 2.0    | 288           | 2.0    | 0.896     | 41.3        | LOS E            | 18.8              | 476.9     | 1.00      | 1.60                | 2.58             | 25.0        |
| 18                                         | R2   | 233           | 2.0    | 253           | 2.0    | 0.896     | 41.3        | LOS E            | 18.8              | 476.9     | 1.00      | 1.60                | 2.58             | 22.9        |
| 18b                                        | R3   | 1             | 0.0    | 1             | 0.0    | 0.896     | 41.2        | LOS E            | 18.8              | 476.9     | 1.00      | 1.60                | 2.58             | 22.3        |
| Approach                                   |      | 500           | 2.0    | 543           | 2.0    | 0.896     | 41.3        | LOS E            | 18.8              | 476.9     | 1.00      | 1.60                | 2.58             | 24.0        |
| SouthEast: Dana Drive                      |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3bx                                        | L3   | 1             | 0.0    | 1             | 0.0    | 0.059     | 9.6         | LOS A            | 0.5               | 12.6      | 1.00      | 0.79                | 1.00             | 40.1        |
| 3x                                         | L2   | 1             | 0.0    | 1             | 0.0    | 0.059     | 9.6         | LOS A            | 0.5               | 12.6      | 1.00      | 0.79                | 1.00             | 38.9        |
| 3ax                                        | L1   | 16            | 0.0    | 17            | 0.0    | 0.059     | 9.6         | LOS A            | 0.5               | 12.6      | 1.00      | 0.79                | 1.00             | 36.8        |
| 18bx                                       | R3   | 3             | 33.0   | 3             | 33.0   | 0.059     | 14.1        | LOS B            | 0.5               | 12.6      | 1.00      | 0.79                | 1.00             | 31.6        |
| Approach                                   |      | 21            | 4.7    | 23            | 4.7    | 0.059     | 10.2        | LOS B            | 0.5               | 12.6      | 1.00      | 0.79                | 1.00             | 36.2        |
| East: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 1.359     | 182.9       | LOS F            | 141.6             | 3598.8    | 1.00      | 4.08                | 7.97             | 10.3        |
| 1                                          | L2   | 80            | 2.0    | 87            | 2.0    | 1.359     | 183.0       | LOS F            | 141.6             | 3598.8    | 1.00      | 4.08                | 7.97             | 10.3        |
| 1a                                         | L1   | 94            | 3.0    | 113           | 3.0    | 1.359     | 183.1       | LOS F            | 141.6             | 3598.8    | 1.00      | 4.08                | 7.97             | 10.2        |
| 6                                          | T1   | 1043          | 2.0    | 1134          | 2.0    | 1.359     | 183.0       | LOS F            | 141.6             | 3598.8    | 1.00      | 4.08                | 7.97             | 9.8         |
| Approach                                   |      | 1218          | 2.1    | 1335          | 2.1    | 1.359     | 183.0       | LOS F            | 141.6             | 3598.8    | 1.00      | 4.08                | 7.97             | 9.8         |
| West: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                          | T1   | 466           | 4.0    | 561           | 4.0    | 0.637     | 11.2        | LOS B            | 6.9               | 178.4     | 0.66      | 0.42                | 0.66             | 33.9        |
| 12a                                        | R1   | 11            | 11.0   | 12            | 11.0   | 0.637     | 11.5        | LOS B            | 6.9               | 178.4     | 0.66      | 0.42                | 0.66             | 33.4        |
| 12                                         | R2   | 90            | 2.0    | 98            | 2.0    | 0.637     | 11.2        | LOS B            | 6.9               | 178.4     | 0.66      | 0.42                | 0.66             | 33.5        |
| 12b                                        | R3   | 83            | 3.0    | 100           | 3.0    | 0.637     | 11.2        | LOS B            | 6.9               | 178.4     | 0.66      | 0.42                | 0.66             | 32.9        |
| Approach                                   |      | 650           | 3.7    | 771           | 3.7    | 0.637     | 11.2        | LOS B            | 6.9               | 178.4     | 0.66      | 0.42                | 0.66             | 33.7        |
| SouthWest: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5bx                                        | L3   | 97            | 9.0    | 117           | 9.0    | 0.273     | 7.6         | LOS A            | 2.0               | 54.2      | 0.84      | 0.73                | 0.84             | 37.7        |
| 12ax                                       | R1   | 80            | 10.0   | 96            | 10.0   | 0.273     | 7.7         | LOS A            | 2.0               | 54.2      | 0.84      | 0.73                | 0.84             | 33.4        |
| 12x                                        | R2   | 1             | 0.0    | 1             | 0.0    | 0.273     | 7.1         | LOS A            | 2.0               | 54.2      | 0.84      | 0.73                | 0.84             | 32.7        |
| 12bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.273     | 7.1         | LOS A            | 2.0               | 54.2      | 0.84      | 0.73                | 0.84             | 32.5        |
| Approach                                   |      | 179           | 9.3    | 216           | 9.3    | 0.273     | 7.6         | LOS A            | 2.0               | 54.2      | 0.84      | 0.73                | 0.84             | 35.6        |
| All Vehicles                               |      | 2568          | 3.0    | 2888          | 3.1    | 1.359     | 96.0        | LOS F            | 141.6             | 3598.8    | 0.90      | 2.36                | 4.42             | 15.4        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

# MOVEMENT SUMMARY

 Site: 101 [2030 PM (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance               |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|--------------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                     | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                            |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1                         |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.843     | 43.6        | LOS E            | 13.5              | 342.1     | 1.00      | 1.45                | 2.21             | 25.7        |
| 3                                          | L2   | 176           | 2.0    | 191           | 2.0    | 0.843     | 43.8        | LOS E            | 13.5              | 342.1     | 1.00      | 1.45                | 2.21             | 24.4        |
| 18                                         | R2   | 154           | 2.0    | 167           | 2.0    | 0.843     | 43.8        | LOS E            | 13.5              | 342.1     | 1.00      | 1.45                | 2.21             | 22.3        |
| 18b                                        | R3   | 1             | 0.0    | 1             | 0.0    | 0.843     | 43.6        | LOS E            | 13.5              | 342.1     | 1.00      | 1.45                | 2.21             | 21.8        |
| Approach                                   |      | 332           | 2.0    | 361           | 2.0    | 0.843     | 43.8        | LOS E            | 13.5              | 342.1     | 1.00      | 1.45                | 2.21             | 23.4        |
| SouthEast: Dana Drive                      |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3bx                                        | L3   | 1             | 0.0    | 1             | 0.0    | 0.033     | 9.4         | LOS A            | 0.3               | 7.1       | 1.00      | 0.74                | 1.00             | 40.4        |
| 3x                                         | L2   | 1             | 0.0    | 1             | 0.0    | 0.033     | 9.4         | LOS A            | 0.3               | 7.1       | 1.00      | 0.74                | 1.00             | 39.2        |
| 3ax                                        | L1   | 9             | 0.0    | 10            | 0.0    | 0.033     | 9.4         | LOS A            | 0.3               | 7.1       | 1.00      | 0.74                | 1.00             | 37.1        |
| 18bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.033     | 9.4         | LOS A            | 0.3               | 7.1       | 1.00      | 0.74                | 1.00             | 32.1        |
| Approach                                   |      | 12            | 0.0    | 13            | 0.0    | 0.033     | 9.4         | LOS A            | 0.3               | 7.1       | 1.00      | 0.74                | 1.00             | 37.0        |
| East: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.708     | 13.7        | LOS B            | 11.3              | 286.6     | 0.81      | 0.70                | 1.01             | 37.6        |
| 1                                          | L2   | 253           | 2.0    | 275           | 2.0    | 0.708     | 13.8        | LOS B            | 11.3              | 286.6     | 0.81      | 0.70                | 1.01             | 37.7        |
| 1a                                         | L1   | 33            | 0.0    | 36            | 0.0    | 0.708     | 13.7        | LOS B            | 11.3              | 286.6     | 0.81      | 0.70                | 1.01             | 37.1        |
| 6                                          | T1   | 459           | 1.0    | 510           | 1.0    | 0.708     | 13.8        | LOS B            | 11.3              | 286.6     | 0.81      | 0.70                | 1.01             | 31.6        |
| Approach                                   |      | 746           | 1.3    | 822           | 1.3    | 0.708     | 13.8        | LOS B            | 11.3              | 286.6     | 0.81      | 0.70                | 1.01             | 33.7        |
| West: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                          | T1   | 1035          | 9.0    | 1125          | 9.0    | 1.470     | 230.7       | LOS F            | 184.5             | 4884.1    | 1.00      | 4.40                | 8.14             | 8.1         |
| 12a                                        | R1   | 16            | 8.0    | 18            | 8.0    | 1.470     | 230.7       | LOS F            | 184.5             | 4884.1    | 1.00      | 4.40                | 8.14             | 8.1         |
| 12                                         | R2   | 288           | 2.0    | 313           | 2.0    | 1.470     | 230.4       | LOS F            | 184.5             | 4884.1    | 1.00      | 4.40                | 8.14             | 8.1         |
| 12b                                        | R3   | 27            | 0.0    | 29            | 0.0    | 1.470     | 230.3       | LOS F            | 184.5             | 4884.1    | 1.00      | 4.40                | 8.14             | 8.0         |
| Approach                                   |      | 1366          | 7.3    | 1485          | 7.3    | 1.470     | 230.6       | LOS F            | 184.5             | 4884.1    | 1.00      | 4.40                | 8.14             | 8.1         |
| SouthWest: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5bx                                        | L3   | 33            | 0.0    | 36            | 0.0    | 0.313     | 17.0        | LOS C            | 2.9               | 73.1      | 1.00      | 0.92                | 1.00             | 34.9        |
| 12ax                                       | R1   | 62            | 0.0    | 67            | 0.0    | 0.313     | 17.0        | LOS C            | 2.9               | 73.1      | 1.00      | 0.92                | 1.00             | 30.2        |
| 12x                                        | R2   | 1             | 0.0    | 1             | 0.0    | 0.313     | 17.0        | LOS C            | 2.9               | 73.1      | 1.00      | 0.92                | 1.00             | 29.6        |
| 12bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.313     | 17.0        | LOS C            | 2.9               | 73.1      | 1.00      | 0.92                | 1.00             | 29.4        |
| Approach                                   |      | 97            | 0.0    | 105           | 0.0    | 0.313     | 17.0        | LOS C            | 2.9               | 73.1      | 1.00      | 0.92                | 1.00             | 31.7        |
| All Vehicles                               |      | 2553          | 4.6    | 2787          | 4.5    | 1.470     | 133.3       | LOS F            | 184.5             | 4884.1    | 0.94      | 2.78                | 4.96             | 12.5        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

# MOVEMENT SUMMARY

 Site: 101 [2035 AM (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance               |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|--------------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                     | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                            |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1                         |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 1.168     | 117.4       | LOS F            | 52.8              | 1340.6    | 1.00      | 2.66                | 5.39             | 14.6        |
| 3                                          | L2   | 329           | 2.0    | 358           | 2.0    | 1.168     | 117.6       | LOS F            | 52.8              | 1340.6    | 1.00      | 2.66                | 5.39             | 14.2        |
| 18                                         | R2   | 290           | 2.0    | 315           | 2.0    | 1.168     | 117.6       | LOS F            | 52.8              | 1340.6    | 1.00      | 2.66                | 5.39             | 13.4        |
| 18b                                        | R3   | 1             | 0.0    | 1             | 0.0    | 1.168     | 117.4       | LOS F            | 52.8              | 1340.6    | 1.00      | 2.66                | 5.39             | 13.2        |
| Approach                                   |      | 621           | 2.0    | 675           | 2.0    | 1.168     | 117.6       | LOS F            | 52.8              | 1340.6    | 1.00      | 2.66                | 5.39             | 13.8        |
| SouthEast: Dana Drive                      |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3bx                                        | L3   | 1             | 0.0    | 1             | 0.0    | 0.080     | 11.9        | LOS B            | 0.6               | 16.9      | 1.00      | 0.83                | 1.00             | 38.6        |
| 3x                                         | L2   | 1             | 0.0    | 1             | 0.0    | 0.080     | 11.9        | LOS B            | 0.6               | 16.9      | 1.00      | 0.83                | 1.00             | 37.6        |
| 3ax                                        | L1   | 17            | 0.0    | 18            | 0.0    | 0.080     | 11.9        | LOS B            | 0.6               | 16.9      | 1.00      | 0.83                | 1.00             | 35.6        |
| 18bx                                       | R3   | 4             | 33.0   | 4             | 33.0   | 0.080     | 17.4        | LOS C            | 0.6               | 16.9      | 1.00      | 0.83                | 1.00             | 30.7        |
| Approach                                   |      | 23            | 5.7    | 25            | 5.7    | 0.080     | 12.8        | LOS B            | 0.6               | 16.9      | 1.00      | 0.83                | 1.00             | 34.8        |
| East: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 1.488     | 238.6       | LOS F            | 180.7             | 4593.9    | 1.00      | 4.78                | 9.55             | 8.3         |
| 1                                          | L2   | 98            | 2.0    | 107           | 2.0    | 1.488     | 238.6       | LOS F            | 180.7             | 4593.9    | 1.00      | 4.78                | 9.55             | 8.3         |
| 1a                                         | L1   | 109           | 3.0    | 131           | 3.0    | 1.488     | 238.7       | LOS F            | 180.7             | 4593.9    | 1.00      | 4.78                | 9.55             | 8.3         |
| 6                                          | T1   | 1137          | 2.0    | 1236          | 2.0    | 1.488     | 238.6       | LOS F            | 180.7             | 4593.9    | 1.00      | 4.78                | 9.55             | 8.0         |
| Approach                                   |      | 1345          | 2.1    | 1475          | 2.1    | 1.488     | 238.6       | LOS F            | 180.7             | 4593.9    | 1.00      | 4.78                | 9.55             | 8.0         |
| West: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                          | T1   | 500           | 4.0    | 602           | 4.0    | 0.681     | 12.3        | LOS B            | 7.9               | 203.8     | 0.72      | 0.46                | 0.72             | 33.4        |
| 12a                                        | R1   | 12            | 11.0   | 13            | 11.0   | 0.681     | 12.5        | LOS B            | 7.9               | 203.8     | 0.72      | 0.46                | 0.72             | 32.9        |
| 12                                         | R2   | 111           | 2.0    | 121           | 2.0    | 0.681     | 12.2        | LOS B            | 7.9               | 203.8     | 0.72      | 0.46                | 0.72             | 33.0        |
| 12b                                        | R3   | 90            | 3.0    | 108           | 3.0    | 0.681     | 12.3        | LOS B            | 7.9               | 203.8     | 0.72      | 0.46                | 0.72             | 32.4        |
| Approach                                   |      | 713           | 3.7    | 845           | 3.7    | 0.681     | 12.3        | LOS B            | 7.9               | 203.8     | 0.72      | 0.46                | 0.72             | 33.2        |
| SouthWest: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5bx                                        | L3   | 105           | 9.0    | 127           | 9.0    | 0.317     | 8.6         | LOS A            | 2.5               | 67.2      | 0.90      | 0.80                | 0.90             | 37.2        |
| 12ax                                       | R1   | 89            | 10.0   | 107           | 10.0   | 0.317     | 8.7         | LOS A            | 2.5               | 67.2      | 0.90      | 0.80                | 0.90             | 33.0        |
| 12x                                        | R2   | 1             | 0.0    | 1             | 0.0    | 0.317     | 8.1         | LOS A            | 2.5               | 67.2      | 0.90      | 0.80                | 0.90             | 32.3        |
| 12bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.317     | 8.1         | LOS A            | 2.5               | 67.2      | 0.90      | 0.80                | 0.90             | 32.1        |
| Approach                                   |      | 196           | 9.4    | 236           | 9.4    | 0.317     | 8.6         | LOS A            | 2.5               | 67.2      | 0.90      | 0.80                | 0.90             | 35.1        |
| All Vehicles                               |      | 2898          | 3.0    | 3255          | 3.0    | 1.488     | 136.4       | LOS F            | 180.7             | 4593.9    | 0.92      | 2.90                | 5.70             | 12.3        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

# MOVEMENT SUMMARY

 Site: 101 [2035 PM (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance               |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|--------------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                     | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                            |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1                         |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.903     | 48.2        | LOS E            | 18.1              | 460.4     | 1.00      | 1.59                | 2.56             | 24.5        |
| 3                                          | L2   | 218           | 2.0    | 237           | 2.0    | 0.903     | 48.4        | LOS E            | 18.1              | 460.4     | 1.00      | 1.59                | 2.56             | 23.4        |
| 18                                         | R2   | 192           | 2.0    | 209           | 2.0    | 0.903     | 48.4        | LOS E            | 18.1              | 460.4     | 1.00      | 1.59                | 2.56             | 21.5        |
| 18b                                        | R3   | 1             | 0.0    | 1             | 0.0    | 0.903     | 48.2        | LOS E            | 18.1              | 460.4     | 1.00      | 1.59                | 2.56             | 21.0        |
| Approach                                   |      | 412           | 2.0    | 448           | 2.0    | 0.903     | 48.4        | LOS E            | 18.1              | 460.4     | 1.00      | 1.59                | 2.56             | 22.4        |
| SouthEast: Dana Drive                      |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3bx                                        | L3   | 1             | 0.0    | 1             | 0.0    | 0.035     | 9.1         | LOS A            | 0.3               | 7.7       | 1.00      | 0.73                | 1.00             | 40.5        |
| 3x                                         | L2   | 1             | 0.0    | 1             | 0.0    | 0.035     | 9.1         | LOS A            | 0.3               | 7.7       | 1.00      | 0.73                | 1.00             | 39.4        |
| 3ax                                        | L1   | 10            | 0.0    | 11            | 0.0    | 0.035     | 9.1         | LOS A            | 0.3               | 7.7       | 1.00      | 0.73                | 1.00             | 37.2        |
| 18bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.035     | 9.1         | LOS A            | 0.3               | 7.7       | 1.00      | 0.73                | 1.00             | 32.2        |
| Approach                                   |      | 13            | 0.0    | 14            | 0.0    | 0.035     | 9.1         | LOS A            | 0.3               | 7.7       | 1.00      | 0.73                | 1.00             | 37.2        |
| East: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.816     | 19.3        | LOS C            | 21.5              | 542.1     | 0.97      | 1.08                | 1.61             | 34.6        |
| 1                                          | L2   | 320           | 2.0    | 348           | 2.0    | 0.816     | 19.4        | LOS C            | 21.5              | 542.1     | 0.97      | 1.08                | 1.61             | 34.7        |
| 1a                                         | L1   | 41            | 0.0    | 45            | 0.0    | 0.816     | 19.3        | LOS C            | 21.5              | 542.1     | 0.97      | 1.08                | 1.61             | 34.2        |
| 6                                          | T1   | 490           | 1.0    | 544           | 1.0    | 0.816     | 19.3        | LOS C            | 21.5              | 542.1     | 0.97      | 1.08                | 1.61             | 29.5        |
| Approach                                   |      | 852           | 1.3    | 938           | 1.3    | 0.816     | 19.3        | LOS C            | 21.5              | 542.1     | 0.97      | 1.08                | 1.61             | 31.5        |
| West: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                          | T1   | 1108          | 9.0    | 1204          | 9.0    | 1.723     | 343.1       | LOS F            | 247.9             | 6552.1    | 1.00      | 5.49                | 10.74            | 5.8         |
| 12a                                        | R1   | 17            | 8.0    | 19            | 8.0    | 1.723     | 343.1       | LOS F            | 247.9             | 6552.1    | 1.00      | 5.49                | 10.74            | 5.8         |
| 12                                         | R2   | 363           | 2.0    | 395           | 2.0    | 1.723     | 342.8       | LOS F            | 247.9             | 6552.1    | 1.00      | 5.49                | 10.74            | 5.8         |
| 12b                                        | R3   | 30            | 0.0    | 33            | 0.0    | 1.723     | 342.7       | LOS F            | 247.9             | 6552.1    | 1.00      | 5.49                | 10.74            | 5.8         |
| Approach                                   |      | 1518          | 7.1    | 1650          | 7.1    | 1.723     | 343.0       | LOS F            | 247.9             | 6552.1    | 1.00      | 5.49                | 10.74            | 5.8         |
| SouthWest: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5bx                                        | L3   | 36            | 0.0    | 39            | 0.0    | 0.348     | 17.1        | LOS C            | 3.4               | 83.8      | 1.00      | 0.92                | 1.00             | 34.9        |
| 12ax                                       | R1   | 76            | 0.0    | 83            | 0.0    | 0.348     | 17.1        | LOS C            | 3.4               | 83.8      | 1.00      | 0.92                | 1.00             | 30.3        |
| 12x                                        | R2   | 1             | 0.0    | 1             | 0.0    | 0.348     | 17.1        | LOS C            | 3.4               | 83.8      | 1.00      | 0.92                | 1.00             | 29.6        |
| 12bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.348     | 17.1        | LOS C            | 3.4               | 83.8      | 1.00      | 0.92                | 1.00             | 29.5        |
| Approach                                   |      | 114           | 0.0    | 124           | 0.0    | 0.348     | 17.1        | LOS C            | 3.4               | 83.8      | 1.00      | 0.92                | 1.00             | 31.6        |
| All Vehicles                               |      | 2909          | 4.4    | 3175          | 4.4    | 1.723     | 191.6       | LOS F            | 247.9             | 6552.1    | 0.99      | 3.44                | 6.47             | 9.6         |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

## MULTILANE ROUNDABOUT



# MOVEMENT SUMMARY

 Site: 101 [2025 AM (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance               |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|--------------------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                     | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                            |      | [ Total veh/h | HV % | [ Total veh/h | HV % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1                         |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3b                                         | L3   | 1             | 0.0  | 1             | 0.0  | 0.248     | 6.3         | LOS A            | 1.1               | 28.1      | 0.58      | 0.55                | 0.58             | 39.6        |
| 3                                          | L2   | 210           | 2.0  | 228           | 2.0  | 0.248     | 6.4         | LOS A            | 1.1               | 28.1      | 0.58      | 0.55                | 0.58             | 36.9        |
| 18                                         | R2   | 185           | 2.0  | 201           | 2.0  | 0.248     | 7.2         | LOS A            | 1.1               | 27.4      | 0.59      | 0.58                | 0.59             | 35.1        |
| 18b                                        | R3   | 1             | 0.0  | 1             | 0.0  | 0.248     | 7.0         | LOS A            | 1.1               | 27.4      | 0.59      | 0.58                | 0.59             | 33.6        |
| Approach                                   |      | 397           | 2.0  | 432           | 2.0  | 0.248     | 6.8         | LOS A            | 1.1               | 28.1      | 0.59      | 0.56                | 0.59             | 36.1        |
| SouthEast: Dana Drive                      |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3bx                                        | L3   | 1             | 0.0  | 1             | 0.0  | 0.018     | 3.6         | LOS A            | 0.1               | 1.9       | 0.59      | 0.44                | 0.59             | 43.8        |
| 3x                                         | L2   | 1             | 0.0  | 1             | 0.0  | 0.018     | 3.6         | LOS A            | 0.1               | 1.9       | 0.59      | 0.44                | 0.59             | 42.5        |
| 3ax                                        | L1   | 15            | 0.0  | 16            | 0.0  | 0.018     | 3.6         | LOS A            | 0.1               | 1.9       | 0.59      | 0.44                | 0.59             | 39.9        |
| 18bx                                       | R3   | 3             | 33.0 | 3             | 33.0 | 0.007     | 8.2         | LOS A            | 0.0               | 0.8       | 0.63      | 0.51                | 0.63             | 34.1        |
| Approach                                   |      | 20            | 5.0  | 22            | 5.0  | 0.018     | 4.3         | LOS A            | 0.1               | 1.9       | 0.60      | 0.45                | 0.60             | 39.4        |
| East: Old Cornelia Highway                 |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 1b                                         | L3   | 1             | 0.0  | 1             | 0.0  | 0.508     | 9.7         | LOS A            | 3.7               | 93.3      | 0.63      | 0.55                | 0.68             | 40.8        |
| 1                                          | L2   | 62            | 2.0  | 67            | 2.0  | 0.508     | 9.8         | LOS A            | 3.7               | 93.3      | 0.63      | 0.55                | 0.68             | 40.8        |
| 1a                                         | L1   | 82            | 3.0  | 99            | 3.0  | 0.508     | 9.8         | LOS A            | 3.7               | 93.3      | 0.63      | 0.55                | 0.68             | 39.6        |
| 6                                          | T1   | 814           | 2.0  | 885           | 2.0  | 0.508     | 9.5         | LOS A            | 3.7               | 93.3      | 0.63      | 0.53                | 0.66             | 34.0        |
| Approach                                   |      | 959           | 2.1  | 1052          | 2.1  | 0.508     | 9.6         | LOS A            | 3.7               | 93.3      | 0.63      | 0.53                | 0.66             | 34.9        |
| West: Old Cornelia Highway                 |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 2                                          | T1   | 435           | 4.0  | 524           | 4.0  | 0.304     | 6.0         | LOS A            | 1.8               | 45.5      | 0.39      | 0.25                | 0.39             | 36.7        |
| 12a                                        | R1   | 11            | 11.0 | 12            | 11.0 | 0.304     | 6.1         | LOS A            | 1.8               | 45.5      | 0.39      | 0.24                | 0.39             | 36.2        |
| 12                                         | R2   | 70            | 2.0  | 76            | 2.0  | 0.304     | 5.8         | LOS A            | 1.8               | 45.5      | 0.39      | 0.24                | 0.39             | 36.4        |
| 12b                                        | R3   | 77            | 3.0  | 93            | 3.0  | 0.304     | 5.9         | LOS A            | 1.8               | 45.5      | 0.39      | 0.24                | 0.39             | 35.7        |
| Approach                                   |      | 593           | 3.8  | 705           | 3.8  | 0.304     | 6.0         | LOS A            | 1.8               | 45.5      | 0.39      | 0.25                | 0.39             | 36.5        |
| SouthWest: White Sulphur Elementary School |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 5bx                                        | L3   | 90            | 9.0  | 108           | 9.0  | 0.099     | 4.2         | LOS A            | 0.4               | 11.4      | 0.51      | 0.42                | 0.51             | 37.7        |
| 12ax                                       | R1   | 72            | 10.0 | 87            | 10.0 | 0.105     | 5.3         | LOS A            | 0.4               | 11.5      | 0.54      | 0.47                | 0.54             | 36.7        |
| 12x                                        | R2   | 1             | 0.0  | 1             | 0.0  | 0.105     | 4.8         | LOS A            | 0.4               | 11.5      | 0.54      | 0.47                | 0.54             | 35.9        |
| 12bx                                       | R3   | 1             | 0.0  | 1             | 0.0  | 0.105     | 4.8         | LOS A            | 0.4               | 11.5      | 0.54      | 0.47                | 0.54             | 35.6        |
| Approach                                   |      | 164           | 9.3  | 198           | 9.3  | 0.105     | 4.7         | LOS A            | 0.4               | 11.5      | 0.52      | 0.44                | 0.52             | 37.3        |
| All Vehicles                               |      | 2133          | 3.1  | 2408          | 3.2  | 0.508     | 7.6         | LOS A            | 3.7               | 93.3      | 0.54      | 0.45                | 0.56             | 35.8        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

# MOVEMENT SUMMARY

 Site: 101 [2025 PM (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance               |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
|--------------------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                     | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                            |      | [ Total veh/h | HV % | [ Total veh/h | HV % | v/c       | sec         |                  | [ Veh. veh        | Dist ] ft |           |                     |                  | mph         |
| South: Driveway #1                         |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3b                                         | L3   | 1             | 0.0  | 1             | 0.0  | 0.232     | 8.1         | LOS A            | 1.1               | 29.2      | 0.74      | 0.74                | 0.74             | 38.6        |
| 3                                          | L2   | 141           | 2.0  | 153           | 2.0  | 0.232     | 8.2         | LOS A            | 1.1               | 29.2      | 0.74      | 0.74                | 0.74             | 36.0        |
| 18                                         | R2   | 124           | 2.0  | 135           | 2.0  | 0.250     | 10.1        | LOS B            | 1.2               | 29.5      | 0.74      | 0.74                | 0.74             | 33.6        |
| 18b                                        | R3   | 1             | 0.0  | 1             | 0.0  | 0.250     | 9.9         | LOS A            | 1.2               | 29.5      | 0.74      | 0.74                | 0.74             | 32.2        |
| Approach                                   |      | 267           | 2.0  | 290           | 2.0  | 0.250     | 9.1         | LOS A            | 1.2               | 29.5      | 0.74      | 0.74                | 0.74             | 34.9        |
| SouthEast: Dana Drive                      |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 3bx                                        | L3   | 1             | 0.0  | 1             | 0.0  | 0.014     | 4.6         | LOS A            | 0.1               | 1.8       | 0.74      | 0.55                | 0.74             | 43.0        |
| 3x                                         | L2   | 1             | 0.0  | 1             | 0.0  | 0.014     | 4.6         | LOS A            | 0.1               | 1.8       | 0.74      | 0.55                | 0.74             | 41.7        |
| 3ax                                        | L1   | 8             | 0.0  | 9             | 0.0  | 0.014     | 4.6         | LOS A            | 0.1               | 1.8       | 0.74      | 0.55                | 0.74             | 39.2        |
| 18bx                                       | R3   | 1             | 0.0  | 1             | 0.0  | 0.002     | 6.2         | LOS A            | 0.0               | 0.2       | 0.72      | 0.48                | 0.72             | 35.5        |
| Approach                                   |      | 11            | 0.0  | 12            | 0.0  | 0.014     | 4.8         | LOS A            | 0.1               | 1.8       | 0.73      | 0.55                | 0.73             | 39.5        |
| East: Old Cornelia Highway                 |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 1b                                         | L3   | 1             | 0.0  | 1             | 0.0  | 0.316     | 6.1         | LOS A            | 1.8               | 46.1      | 0.42      | 0.28                | 0.42             | 41.1        |
| 1                                          | L2   | 208           | 2.0  | 226           | 2.0  | 0.316     | 6.2         | LOS A            | 1.8               | 46.1      | 0.42      | 0.28                | 0.42             | 41.1        |
| 1a                                         | L1   | 27            | 0.0  | 29            | 0.0  | 0.316     | 6.1         | LOS A            | 1.8               | 46.1      | 0.42      | 0.28                | 0.42             | 40.3        |
| 6                                          | T1   | 431           | 1.0  | 479           | 1.0  | 0.316     | 6.0         | LOS A            | 1.8               | 46.4      | 0.42      | 0.27                | 0.42             | 35.7        |
| Approach                                   |      | 667           | 1.3  | 735           | 1.3  | 0.316     | 6.1         | LOS A            | 1.8               | 46.4      | 0.42      | 0.27                | 0.42             | 37.5        |
| West: Old Cornelia Highway                 |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 2                                          | T1   | 968           | 9.0  | 1052          | 9.0  | 0.649     | 13.0        | LOS B            | 7.8               | 210.1     | 0.67      | 0.63                | 0.88             | 33.0        |
| 12a                                        | R1   | 15            | 8.0  | 17            | 8.0  | 0.649     | 12.5        | LOS B            | 7.6               | 199.3     | 0.66      | 0.60                | 0.84             | 32.9        |
| 12                                         | R2   | 236           | 2.0  | 257           | 2.0  | 0.649     | 12.3        | LOS B            | 7.6               | 199.3     | 0.66      | 0.60                | 0.84             | 33.0        |
| 12b                                        | R3   | 25            | 0.0  | 27            | 0.0  | 0.649     | 12.2        | LOS B            | 7.6               | 199.3     | 0.66      | 0.60                | 0.84             | 32.4        |
| Approach                                   |      | 1244          | 7.5  | 1353          | 7.5  | 0.649     | 12.9        | LOS B            | 7.8               | 210.1     | 0.67      | 0.62                | 0.87             | 33.0        |
| SouthWest: White Sulphur Elementary School |      |               |      |               |      |           |             |                  |                   |           |           |                     |                  |             |
| 5bx                                        | L3   | 31            | 0.0  | 34            | 0.0  | 0.064     | 7.6         | LOS A            | 0.3               | 7.6       | 0.77      | 0.73                | 0.77             | 37.1        |
| 12ax                                       | R1   | 52            | 0.0  | 57            | 0.0  | 0.075     | 5.4         | LOS A            | 0.4               | 10.5      | 0.79      | 0.70                | 0.79             | 36.6        |
| 12x                                        | R2   | 1             | 0.0  | 1             | 0.0  | 0.075     | 5.4         | LOS A            | 0.4               | 10.5      | 0.79      | 0.70                | 0.79             | 35.7        |
| 12bx                                       | R3   | 1             | 0.0  | 1             | 0.0  | 0.075     | 5.4         | LOS A            | 0.4               | 10.5      | 0.79      | 0.70                | 0.79             | 35.4        |
| Approach                                   |      | 85            | 0.0  | 92            | 0.0  | 0.075     | 6.2         | LOS A            | 0.4               | 10.5      | 0.78      | 0.71                | 0.78             | 36.8        |
| All Vehicles                               |      | 2274          | 4.7  | 2483          | 4.7  | 0.649     | 10.1        | LOS B            | 7.8               | 210.1     | 0.61      | 0.54                | 0.72             | 34.7        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

# MOVEMENT SUMMARY

 Site: 101 [2030 AM (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance               |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|--------------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                     | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                            |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1                         |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.315     | 7.2         | LOS A            | 1.5               | 37.8      | 0.62      | 0.61                | 0.62             | 39.1        |
| 3                                          | L2   | 265           | 2.0    | 288           | 2.0    | 0.315     | 7.3         | LOS A            | 1.5               | 37.8      | 0.62      | 0.61                | 0.62             | 36.5        |
| 18                                         | R2   | 233           | 2.0    | 253           | 2.0    | 0.322     | 8.3         | LOS A            | 1.5               | 37.4      | 0.64      | 0.64                | 0.64             | 34.5        |
| 18b                                        | R3   | 1             | 0.0    | 1             | 0.0    | 0.322     | 8.2         | LOS A            | 1.5               | 37.4      | 0.64      | 0.64                | 0.64             | 33.1        |
| Approach                                   |      | 500           | 2.0    | 543           | 2.0    | 0.322     | 7.8         | LOS A            | 1.5               | 37.8      | 0.63      | 0.62                | 0.63             | 35.6        |
| SouthEast: Dana Drive                      |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3bx                                        | L3   | 1             | 0.0    | 1             | 0.0    | 0.020     | 3.8         | LOS A            | 0.1               | 2.3       | 0.64      | 0.49                | 0.64             | 43.6        |
| 3x                                         | L2   | 1             | 0.0    | 1             | 0.0    | 0.020     | 3.8         | LOS A            | 0.1               | 2.3       | 0.64      | 0.49                | 0.64             | 42.2        |
| 3ax                                        | L1   | 16            | 0.0    | 17            | 0.0    | 0.020     | 3.8         | LOS A            | 0.1               | 2.3       | 0.64      | 0.49                | 0.64             | 39.7        |
| 18bx                                       | R3   | 3             | 33.0   | 3             | 33.0   | 0.007     | 8.0         | LOS A            | 0.0               | 0.8       | 0.66      | 0.53                | 0.66             | 34.2        |
| Approach                                   |      | 21            | 4.7    | 23            | 4.7    | 0.020     | 4.4         | LOS A            | 0.1               | 2.3       | 0.64      | 0.49                | 0.64             | 39.3        |
| East: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.673     | 14.5        | LOS B            | 9.0               | 228.3     | 0.80      | 0.91                | 1.24             | 37.8        |
| 1                                          | L2   | 80            | 2.0    | 87            | 2.0    | 0.673     | 14.6        | LOS B            | 9.0               | 228.3     | 0.80      | 0.91                | 1.24             | 37.8        |
| 1a                                         | L1   | 94            | 3.0    | 113           | 3.0    | 0.673     | 14.7        | LOS B            | 9.0               | 228.3     | 0.80      | 0.91                | 1.24             | 36.7        |
| 6                                          | T1   | 1043          | 2.0    | 1134          | 2.0    | 0.673     | 14.1        | LOS B            | 9.1               | 232.3     | 0.79      | 0.89                | 1.22             | 32.0        |
| Approach                                   |      | 1218          | 2.1    | 1335          | 2.1    | 0.673     | 14.2        | LOS B            | 9.1               | 232.3     | 0.79      | 0.89                | 1.22             | 32.7        |
| West: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                          | T1   | 466           | 4.0    | 561           | 4.0    | 0.340     | 6.6         | LOS A            | 2.1               | 54.8      | 0.46      | 0.31                | 0.46             | 36.3        |
| 12a                                        | R1   | 11            | 11.0   | 12            | 11.0   | 0.340     | 6.6         | LOS A            | 2.1               | 54.8      | 0.45      | 0.30                | 0.45             | 36.0        |
| 12                                         | R2   | 90            | 2.0    | 98            | 2.0    | 0.340     | 6.3         | LOS A            | 2.1               | 54.8      | 0.45      | 0.30                | 0.45             | 36.2        |
| 12b                                        | R3   | 83            | 3.0    | 100           | 3.0    | 0.340     | 6.4         | LOS A            | 2.1               | 54.8      | 0.45      | 0.30                | 0.45             | 35.4        |
| Approach                                   |      | 650           | 3.7    | 771           | 3.7    | 0.340     | 6.5         | LOS A            | 2.1               | 54.8      | 0.46      | 0.31                | 0.46             | 36.2        |
| SouthWest: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5bx                                        | L3   | 97            | 9.0    | 117           | 9.0    | 0.109     | 4.3         | LOS A            | 0.5               | 13.0      | 0.55      | 0.46                | 0.55             | 37.6        |
| 12ax                                       | R1   | 80            | 10.0   | 96            | 10.0   | 0.121     | 5.7         | LOS A            | 0.5               | 13.7      | 0.57      | 0.52                | 0.57             | 36.5        |
| 12x                                        | R2   | 1             | 0.0    | 1             | 0.0    | 0.121     | 5.1         | LOS A            | 0.5               | 13.7      | 0.57      | 0.52                | 0.57             | 35.7        |
| 12bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.121     | 5.1         | LOS A            | 0.5               | 13.7      | 0.57      | 0.52                | 0.57             | 35.4        |
| Approach                                   |      | 179           | 9.3    | 216           | 9.3    | 0.121     | 4.9         | LOS A            | 0.5               | 13.7      | 0.56      | 0.49                | 0.56             | 37.1        |
| All Vehicles                               |      | 2568          | 3.0    | 2888          | 3.1    | 0.673     | 10.2        | LOS B            | 9.1               | 232.3     | 0.65      | 0.65                | 0.85             | 34.5        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

# MOVEMENT SUMMARY

 Site: 101 [2030 PM (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance               |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|--------------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                     | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                            |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1                         |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.313     | 9.9         | LOS A            | 1.7               | 42.8      | 0.81      | 0.81                | 0.81             | 37.6        |
| 3                                          | L2   | 176           | 2.0    | 191           | 2.0    | 0.313     | 10.1        | LOS B            | 1.7               | 42.8      | 0.81      | 0.81                | 0.81             | 35.1        |
| 18                                         | R2   | 154           | 2.0    | 167           | 2.0    | 0.345     | 13.0        | LOS B            | 1.8               | 46.4      | 0.80      | 0.84                | 0.91             | 32.2        |
| 18b                                        | R3   | 1             | 0.0    | 1             | 0.0    | 0.345     | 12.8        | LOS B            | 1.8               | 46.4      | 0.80      | 0.84                | 0.91             | 31.0        |
| Approach                                   |      | 332           | 2.0    | 361           | 2.0    | 0.345     | 11.4        | LOS B            | 1.8               | 46.4      | 0.81      | 0.82                | 0.86             | 33.8        |
| SouthEast: Dana Drive                      |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3bx                                        | L3   | 1             | 0.0    | 1             | 0.0    | 0.017     | 5.1         | LOS A            | 0.1               | 2.3       | 0.80      | 0.61                | 0.80             | 42.7        |
| 3x                                         | L2   | 1             | 0.0    | 1             | 0.0    | 0.017     | 5.1         | LOS A            | 0.1               | 2.3       | 0.80      | 0.61                | 0.80             | 41.4        |
| 3ax                                        | L1   | 9             | 0.0    | 10            | 0.0    | 0.017     | 5.1         | LOS A            | 0.1               | 2.3       | 0.80      | 0.61                | 0.80             | 39.0        |
| 18bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.002     | 6.3         | LOS A            | 0.0               | 0.2       | 0.78      | 0.51                | 0.78             | 35.4        |
| Approach                                   |      | 12            | 0.0    | 13            | 0.0    | 0.017     | 5.2         | LOS A            | 0.1               | 2.3       | 0.80      | 0.60                | 0.80             | 39.2        |
| East: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.361     | 6.8         | LOS A            | 2.2               | 55.8      | 0.49      | 0.34                | 0.49             | 40.3        |
| 1                                          | L2   | 253           | 2.0    | 275           | 2.0    | 0.361     | 6.9         | LOS A            | 2.2               | 55.8      | 0.49      | 0.34                | 0.49             | 40.3        |
| 1a                                         | L1   | 33            | 0.0    | 36            | 0.0    | 0.361     | 6.8         | LOS A            | 2.2               | 55.8      | 0.49      | 0.34                | 0.49             | 39.6        |
| 6                                          | T1   | 459           | 1.0    | 510           | 1.0    | 0.361     | 6.6         | LOS A            | 2.2               | 56.5      | 0.48      | 0.33                | 0.48             | 35.5        |
| Approach                                   |      | 746           | 1.3    | 822           | 1.3    | 0.361     | 6.7         | LOS A            | 2.2               | 56.5      | 0.48      | 0.34                | 0.48             | 37.3        |
| West: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                          | T1   | 1035          | 9.0    | 1125          | 9.0    | 0.735     | 16.7        | LOS C            | 12.9              | 336.6     | 0.80      | 0.92                | 1.31             | 31.4        |
| 12a                                        | R1   | 16            | 8.0    | 18            | 8.0    | 0.735     | 15.8        | LOS C            | 12.9              | 336.6     | 0.79      | 0.88                | 1.27             | 31.4        |
| 12                                         | R2   | 288           | 2.0    | 313           | 2.0    | 0.735     | 15.6        | LOS C            | 12.9              | 336.6     | 0.79      | 0.88                | 1.27             | 31.5        |
| 12b                                        | R3   | 27            | 0.0    | 29            | 0.0    | 0.735     | 15.5        | LOS C            | 12.9              | 336.6     | 0.79      | 0.88                | 1.27             | 31.0        |
| Approach                                   |      | 1366          | 7.3    | 1485          | 7.3    | 0.735     | 16.4        | LOS C            | 12.9              | 338.5     | 0.80      | 0.91                | 1.30             | 31.4        |
| SouthWest: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5bx                                        | L3   | 33            | 0.0    | 36            | 0.0    | 0.077     | 8.9         | LOS A            | 0.4               | 10.0      | 0.83      | 0.80                | 0.83             | 36.5        |
| 12ax                                       | R1   | 62            | 0.0    | 67            | 0.0    | 0.103     | 6.5         | LOS A            | 0.6               | 16.0      | 0.87      | 0.80                | 0.87             | 36.1        |
| 12x                                        | R2   | 1             | 0.0    | 1             | 0.0    | 0.103     | 6.5         | LOS A            | 0.6               | 16.0      | 0.87      | 0.80                | 0.87             | 35.2        |
| 12bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.103     | 6.5         | LOS A            | 0.6               | 16.0      | 0.87      | 0.80                | 0.87             | 35.0        |
| Approach                                   |      | 97            | 0.0    | 105           | 0.0    | 0.103     | 7.3         | LOS A            | 0.6               | 16.0      | 0.86      | 0.80                | 0.86             | 36.2        |
| All Vehicles                               |      | 2553          | 4.6    | 2787          | 4.5    | 0.735     | 12.5        | LOS B            | 12.9              | 338.5     | 0.71      | 0.72                | 0.98             | 33.6        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

# MOVEMENT SUMMARY

 Site: 101 [2035 AM (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance               |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|--------------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                     | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                            |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1                         |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.387     | 8.2         | LOS A            | 2.1               | 53.7      | 0.67      | 0.70                | 0.74             | 38.6        |
| 3                                          | L2   | 329           | 2.0    | 358           | 2.0    | 0.387     | 8.3         | LOS A            | 2.1               | 53.7      | 0.67      | 0.70                | 0.74             | 36.0        |
| 18                                         | R2   | 290           | 2.0    | 315           | 2.0    | 0.409     | 9.9         | LOS A            | 2.3               | 58.1      | 0.69      | 0.74                | 0.84             | 33.7        |
| 18b                                        | R3   | 1             | 0.0    | 1             | 0.0    | 0.409     | 9.8         | LOS A            | 2.3               | 58.1      | 0.69      | 0.74                | 0.84             | 32.3        |
| Approach                                   |      | 621           | 2.0    | 675           | 2.0    | 0.409     | 9.1         | LOS A            | 2.3               | 58.1      | 0.68      | 0.72                | 0.79             | 35.0        |
| SouthEast: Dana Drive                      |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3bx                                        | L3   | 1             | 0.0    | 1             | 0.0    | 0.021     | 3.9         | LOS A            | 0.1               | 2.7       | 0.70      | 0.54                | 0.70             | 43.3        |
| 3x                                         | L2   | 1             | 0.0    | 1             | 0.0    | 0.021     | 3.9         | LOS A            | 0.1               | 2.7       | 0.70      | 0.54                | 0.70             | 42.0        |
| 3ax                                        | L1   | 17            | 0.0    | 18            | 0.0    | 0.021     | 3.9         | LOS A            | 0.1               | 2.7       | 0.70      | 0.54                | 0.70             | 39.5        |
| 18bx                                       | R3   | 4             | 33.0   | 4             | 33.0   | 0.009     | 7.6         | LOS A            | 0.0               | 1.1       | 0.69      | 0.57                | 0.69             | 34.5        |
| Approach                                   |      | 23            | 5.7    | 25            | 5.7    | 0.021     | 4.6         | LOS A            | 0.1               | 2.7       | 0.70      | 0.55                | 0.70             | 38.9        |
| East: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.778     | 20.4        | LOS C            | 13.9              | 352.4     | 0.93      | 1.22                | 1.75             | 34.6        |
| 1                                          | L2   | 98            | 2.0    | 107           | 2.0    | 0.778     | 20.5        | LOS C            | 13.9              | 352.4     | 0.93      | 1.22                | 1.75             | 34.6        |
| 1a                                         | L1   | 109           | 3.0    | 131           | 3.0    | 0.778     | 20.6        | LOS C            | 13.9              | 352.4     | 0.93      | 1.22                | 1.75             | 33.7        |
| 6                                          | T1   | 1137          | 2.0    | 1236          | 2.0    | 0.778     | 19.4        | LOS C            | 14.6              | 369.6     | 0.92      | 1.19                | 1.72             | 29.8        |
| Approach                                   |      | 1345          | 2.1    | 1475          | 2.1    | 0.778     | 19.6        | LOS C            | 14.6              | 369.6     | 0.93      | 1.20                | 1.72             | 30.4        |
| West: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                          | T1   | 500           | 4.0    | 602           | 4.0    | 0.378     | 7.2         | LOS A            | 2.5               | 65.5      | 0.52      | 0.37                | 0.52             | 36.0        |
| 12a                                        | R1   | 12            | 11.0   | 13            | 11.0   | 0.378     | 7.1         | LOS A            | 2.5               | 65.5      | 0.52      | 0.36                | 0.52             | 35.7        |
| 12                                         | R2   | 111           | 2.0    | 121           | 2.0    | 0.378     | 6.8         | LOS A            | 2.5               | 65.5      | 0.52      | 0.36                | 0.52             | 35.9        |
| 12b                                        | R3   | 90            | 3.0    | 108           | 3.0    | 0.378     | 6.8         | LOS A            | 2.5               | 65.5      | 0.52      | 0.36                | 0.52             | 35.1        |
| Approach                                   |      | 713           | 3.7    | 845           | 3.7    | 0.378     | 7.1         | LOS A            | 2.5               | 65.5      | 0.52      | 0.37                | 0.52             | 35.9        |
| SouthWest: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5bx                                        | L3   | 105           | 9.0    | 127           | 9.0    | 0.117     | 4.4         | LOS A            | 0.6               | 14.8      | 0.58      | 0.50                | 0.58             | 37.6        |
| 12ax                                       | R1   | 89            | 10.0   | 107           | 10.0   | 0.139     | 6.1         | LOS A            | 0.6               | 16.4      | 0.61      | 0.57                | 0.61             | 36.3        |
| 12x                                        | R2   | 1             | 0.0    | 1             | 0.0    | 0.139     | 5.5         | LOS A            | 0.6               | 16.4      | 0.61      | 0.57                | 0.61             | 35.5        |
| 12bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.139     | 5.5         | LOS A            | 0.6               | 16.4      | 0.61      | 0.57                | 0.61             | 35.2        |
| Approach                                   |      | 196           | 9.4    | 236           | 9.4    | 0.139     | 5.2         | LOS A            | 0.6               | 16.4      | 0.59      | 0.53                | 0.59             | 37.0        |
| All Vehicles                               |      | 2898          | 3.0    | 3255          | 3.0    | 0.778     | 13.0        | LOS B            | 14.6              | 369.6     | 0.74      | 0.83                | 1.13             | 33.1        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

# MOVEMENT SUMMARY

 Site: 101 [2035 PM (Site Folder: General)]

New Site  
Site Category: (None)  
Roundabout

| Vehicle Movement Performance               |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
|--------------------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|-----------|-----------|---------------------|------------------|-------------|
| Mov ID                                     | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |           | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                                            |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] ft |           |                     |                  |             |
| South: Driveway #1                         |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.436     | 13.6        | LOS B            | 2.9               | 74.6      | 0.89      | 0.97                | 1.11             | 35.7        |
| 3                                          | L2   | 218           | 2.0    | 237           | 2.0    | 0.436     | 13.8        | LOS B            | 2.9               | 74.6      | 0.89      | 0.97                | 1.11             | 33.5        |
| 18                                         | R2   | 192           | 2.0    | 209           | 2.0    | 0.505     | 19.7        | LOS C            | 3.3               | 84.0      | 0.88      | 1.00                | 1.26             | 29.4        |
| 18b                                        | R3   | 1             | 0.0    | 1             | 0.0    | 0.505     | 19.5        | LOS C            | 3.3               | 84.0      | 0.88      | 1.00                | 1.26             | 28.3        |
| Approach                                   |      | 412           | 2.0    | 448           | 2.0    | 0.505     | 16.6        | LOS C            | 3.3               | 84.0      | 0.89      | 0.98                | 1.18             | 31.6        |
| SouthEast: Dana Drive                      |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 3bx                                        | L3   | 1             | 0.0    | 1             | 0.0    | 0.021     | 5.9         | LOS A            | 0.1               | 3.3       | 0.88      | 0.69                | 0.88             | 42.3        |
| 3x                                         | L2   | 1             | 0.0    | 1             | 0.0    | 0.021     | 5.9         | LOS A            | 0.1               | 3.3       | 0.88      | 0.69                | 0.88             | 41.1        |
| 3ax                                        | L1   | 10            | 0.0    | 11            | 0.0    | 0.021     | 5.9         | LOS A            | 0.1               | 3.3       | 0.88      | 0.69                | 0.88             | 38.7        |
| 18bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.002     | 6.5         | LOS A            | 0.0               | 0.3       | 0.86      | 0.54                | 0.86             | 35.3        |
| Approach                                   |      | 13            | 0.0    | 14            | 0.0    | 0.021     | 6.0         | LOS A            | 0.1               | 3.3       | 0.88      | 0.68                | 0.88             | 38.9        |
| East: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 1b                                         | L3   | 1             | 0.0    | 1             | 0.0    | 0.421     | 7.9         | LOS A            | 2.8               | 70.1      | 0.57      | 0.43                | 0.57             | 39.3        |
| 1                                          | L2   | 320           | 2.0    | 348           | 2.0    | 0.421     | 8.0         | LOS A            | 2.8               | 70.1      | 0.57      | 0.43                | 0.57             | 39.3        |
| 1a                                         | L1   | 41            | 0.0    | 45            | 0.0    | 0.421     | 7.9         | LOS A            | 2.8               | 70.1      | 0.57      | 0.43                | 0.57             | 38.7        |
| 6                                          | T1   | 490           | 1.0    | 544           | 1.0    | 0.421     | 7.5         | LOS A            | 2.8               | 71.8      | 0.56      | 0.41                | 0.56             | 35.1        |
| Approach                                   |      | 852           | 1.3    | 938           | 1.3    | 0.421     | 7.7         | LOS A            | 2.8               | 71.8      | 0.56      | 0.42                | 0.56             | 36.9        |
| West: Old Cornelia Highway                 |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 2                                          | T1   | 1108          | 9.0    | 1204          | 9.0    | 0.855     | 25.9        | LOS D            | 22.8              | 594.7     | 0.99      | 1.39                | 2.10             | 27.9        |
| 12a                                        | R1   | 17            | 8.0    | 19            | 8.0    | 0.855     | 24.2        | LOS C            | 22.8              | 594.7     | 0.98      | 1.35                | 2.04             | 28.2        |
| 12                                         | R2   | 363           | 2.0    | 395           | 2.0    | 0.855     | 24.0        | LOS C            | 22.8              | 594.7     | 0.98      | 1.35                | 2.04             | 28.3        |
| 12b                                        | R3   | 30            | 0.0    | 33            | 0.0    | 0.855     | 23.9        | LOS C            | 22.8              | 594.7     | 0.98      | 1.35                | 2.04             | 27.9        |
| Approach                                   |      | 1518          | 7.1    | 1650          | 7.1    | 0.855     | 25.4        | LOS D            | 22.8              | 594.7     | 0.99      | 1.38                | 2.08             | 28.0        |
| SouthWest: White Sulphur Elementary School |      |               |        |               |        |           |             |                  |                   |           |           |                     |                  |             |
| 5bx                                        | L3   | 36            | 0.0    | 39            | 0.0    | 0.102     | 11.0        | LOS B            | 0.6               | 14.6      | 0.90      | 0.89                | 0.90             | 35.5        |
| 12ax                                       | R1   | 76            | 0.0    | 83            | 0.0    | 0.162     | 9.1         | LOS A            | 1.2               | 29.0      | 0.99      | 0.93                | 0.99             | 34.7        |
| 12x                                        | R2   | 1             | 0.0    | 1             | 0.0    | 0.162     | 9.1         | LOS A            | 1.2               | 29.0      | 0.99      | 0.93                | 0.99             | 33.9        |
| 12bx                                       | R3   | 1             | 0.0    | 1             | 0.0    | 0.162     | 9.1         | LOS A            | 1.2               | 29.0      | 0.99      | 0.93                | 0.99             | 33.7        |
| Approach                                   |      | 114           | 0.0    | 124           | 0.0    | 0.162     | 9.7         | LOS A            | 1.2               | 29.0      | 0.96      | 0.92                | 0.96             | 35.0        |
| All Vehicles                               |      | 2909          | 4.4    | 3175          | 4.4    | 0.855     | 18.2        | LOS C            | 22.8              | 594.7     | 0.85      | 1.02                | 1.46             | 31.1        |

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: HCM Delay Formula (Geometric Delay is not included).





# GAINESVILLE CITY SCHOOL SYSTEM

*ONE GAINESVILLE: We will inspire, nurture, challenge, and prepare our students.*

Dear Doug and members of the Planning & Appeals Board:

Thank you for the opportunity to submit comments relative to the applications of Caballero Holdings, LLC in its quest to rezone and annex properties in east Gainesville. Our comments are in two parts, general and specific.

For the record, these properties lie within our New Holland Elementary attendance zone. Several references are made to White Sulphur Elementary, owned by the Hall County School System and slated to close in two years.

In general, we view the proposed as too massive, too dense and projects to be too populated for the extended, planned growth plans in our school system. Further, with studies confirming more than 9000 apartments in our city of about 40,000, we are astonished that no market study accompanies the application verifying the need for more multi-family/apartment units. Also, there is no traffic-generation data in the application to add to the busiest corridor in the entire county, Old Cornelia Highway/Jesse Jewell Parkway/Browns Bridge Road. Clearly, the project reflects profit over pride and unestimated population over strategic planning.

With precedence in the Mundy Mill community whereby the second development company honored the commitment of the original development company to donate a suitable site for a school, nowhere in the submitted application confirms a suitable school site of twenty acres.

We maintain interest in such donation, if a preferred site is determined by our school system. It should be noted, again referencing the Mundy Mill community, the developer donated additional acreage to the original 20 acres with no obligation to the school system. Mundy Mill Learning Academy has frontage on the property's main thoroughfare as a community (+) amenity, exceptional learning, convenience and safety. We are unable to support a passing reference to a school site without much further study.

Specifically in our study, we also recommend conditions be added to the Planning Commission's consideration:

- Developer-paid traffic signals at each proposed entrance for the safety of vehicles and/or buses transporting students;
- Bus pull-off aprons in each interior pod artery;
- Prohibited weekday parking in cul-de-sacs to ensure safe and smooth bus flow;
- Honoring, in a separate certified communique to the school system, the 20-acre site proposed for an elementary school; and
- Community information sessions in Sherwood Heights, New Holland/Fair Street and Morningside Heights neighborhoods.

Thank you.

Board of Education  
Andy Stewart, Chair  
Willie Mitchell, Vice Chair  
Sammy Smith, Treasurer  
Dr. Heather Ramsey, Board Member  
Kris Nordholz, Board Member



Jeremy H. Williams, Ed.D.  
Superintendent

# GAINESVILLE CITY SCHOOL SYSTEM

**ONE GAINESVILLE:** *We will inspire, nurture, challenge, and prepare our students.*

## SIGNATURE PAGE FOR

### GAINESVILLE CITY SCHOOL DISTRICT & BOARD OF EDUCATION

Mr. Andy Stewart, Board Chair

11-1-21

Date

Mr. Willie Mitchell, Board Vice Chair

11-1-21

Date

Mr. Sammy Smith, Board Treasurer

11.1.21

Date

Dr. Heather Ramsey, Board Member

11/1/21

Date

Mr. Kris Nordholz, Board Member

11/1/21

Date

Dr. Jeremy H. Williams, Superintendent

11/1/21

Date

**Date Submitted:** 11/29/2021

**Presenter:** Matt Tate

**Item of Business:** Request from **Sonia del Carmen** to vary the rear yard and right side yard setback requirements on a 0.072± acre tract located on the north side of Rainey Street, west of Woods Mill Road (a/k/a **878 Rainey Street, NW**), having a zoning of Residential-II (R-II).  
Ward Number: Five  
Tax Parcel Number(s): 01-045-008-012  
Request: Bedroom addition

**Meeting Date:** 12/14/2021

**Purpose of Request:**

The applicant is proposing to vary the rear yard setback from 20-feet to 5-feet and the right side yard setback from 10-feet to 5-feet for a 160 square foot bedroom addition to the rear of the home that is in progress of being built. The property consists of a 760± square foot, two-story single-family home originally constructed in 1937. The property owner is basing the hardship on the small size of the lot and the location of the existing home. The applicant states she was unaware there was a setback issue when she purchased the property and found out later there was a discrepancy on the original survey. The adjacent properties are zoned Residential-II (R-II) and General Business (G-B) and includes older single-family homes and various office/warehouse uses.

**History/Background:**

**Facts & Issues for Consideration:**

**Department Recommendation:**

Planning staff recommended approval with two conditions. See the Staff Recommendation report for details.

**Department Director:**

Rusty Ligon

**If funding is involved, are funds approved within the current budget?**

N/A

**Amount Requested:**

**Source of Funds:**

**Finance Comments:**

**Administrative Comments:**

**ATTACHMENTS:**

| Description                                          | Type            |
|------------------------------------------------------|-----------------|
| <input type="checkbox"/> Staff Recommendation Report | Report          |
| <input type="checkbox"/> Location Maps               | Backup Material |
| <input type="checkbox"/> Survey                      | Backup Material |
| <input type="checkbox"/> Warranty Deed               | Backup Material |
| <input type="checkbox"/> Hardship Statement          | Backup Material |
| <input type="checkbox"/> Pictures                    | Backup Material |

**GAINESVILLE PLANNING and APPEALS BOARD  
STAFF RECOMMENDATION**

**Applicant and Property Owner**..... Sonia del Carmen  
**Location**..... 878 Rainey Street, NW  
**Request**..... Vary the rear yard and right side yard setback  
**Size** ..... 0.072± acre  
**Ward**..... Five  
**Proposed Use**..... Bedroom addition  
**Planning Division Staff Recommendation** ..... **Approval, with conditions**  
**Date**..... December 14, 2021

---

▪ **Request**

The applicant is proposing to vary the rear yard setback from 20-feet to 5-feet and the right side yard setback from 10-feet to 5-feet for a 160 square foot, two-story addition to the rear of the home that will increase the size of two bedrooms.

▪ **Background Information and Existing Conditions**

The property consists of a 760± square foot, two-story single-family home originally constructed in 1937. A building permit was issued for the proposed addition on June 24, 2021. The applicant has partially constructed the addition until it was determined there was a setback issue due to an inaccurate survey. The adjacent properties are zoned Residential-II (R-II) and General Business (G-B) and includes older single-family homes and various office/warehouse uses.

▪ **Significant Factors**

The Ordinance requires that the applicant's claim for hardship must be based on the size or shape of the lot, its topography, or other physical characteristics inherent in the lot itself and not on the desired aesthetics. Further, the Code states that a variance shall not be granted as a convenience to the applicant or as a way to gain any advantage or interest over similarly zoned properties.

The property owner is basing the hardship on the small size of the lot and the narrow shape of the lot. The applicant states she was unaware there was a setback issue when she purchased the property and found out later there was a discrepancy on the original survey. The original survey located the rear and right side yard property lines further from the existing home which was incorrect.

According to Planning records there have been no similar rear or side yard variances granted within the immediate area. However, in March of 2008, a front yard setback variance from 40-feet to 15-feet was approved for an office building located just east of the property at 705 Oak Street.

- **Other Departmental Comments**

There are no other departmental comments for this request.

- **Supporting Documents**

Statement of Hardship, Plat, Pictures.

- **Analysis**

**(1) Are there extraordinary and exceptional conditions pertaining to the particular piece of property in question because of its size, shape or topography?**

The property is very small. The width of the property averages approximately 39 feet and the depth averages 77 feet. In addition, the property slopes up from Rainey Street.

**(2) Would the application of the Unified Land Development Code to this particular piece of property create an unnecessary hardship?**

The purpose of the building setback requirement is to provide for uniformity of building placement, sufficient access, as well as to provide for adequate separation from neighboring properties for fire safety.

Given the size of the lot, the existing home currently does not meet the required 20-foot rear yard setback and 10-foot side yard setback requirements. The existing home is currently setback 5-feet to 8-feet from the side property lines and approximately 13-feet from the rear property line. The request is based on the applicant's desire to provide more livable space by increasing the size of two existing bedrooms.

**(3) Are there conditions that are peculiar to the property which adversely affect its reasonable uses or usability as currently zoned?**

The small size of the lot and the existing location of the home adversely affect the ability to build the proposed addition. Whether the request is approved or not, the property will retain its right to be used as a single-family home regardless of the proposed variance request.

**(4) Would relief, if granted, cause substantial detriment to the public good or impair the purposes and intent of this ordinance?**

The proposed addition would effectively close in the rear of the home giving it a more uniform footprint. Given the distance from the adjacent and nearby homes, there appears to be no fire or safety building separation issues if the variance were to be approved. The proposal would not appear to impair the ordinance.

**(5) There must be a proved hardship by showing beyond a doubt the inability to make a reasonable use of the land if the zoning ordinance were applied literally.**

The size of the lot and the location of the existing home appear to be viable physical hardships which support the need for a rear yard and side yard setback variance. As well, the property slopes up from Rainey Street and is flat toward the rear of the property where the proposed addition is located.

**(6) The hardship cannot be self-created; e.g., as in a case where the lot was purchased with the knowledge of an existing restriction.**

The applicant did not construct the home and states they were unaware there were setback issues until it was determined the original survey was incorrect.

▪ **Staff Recommendation**

The Planning Division staff is recommending **conditional approval** of this variance request based on the size of the property and the location of the existing home.

**Conditions**

1. The exterior siding materials for the proposed addition shall match exterior materials on the existing home.
2. The subject property shall be properly maintained including the removal of material, appliances and debris stored outside.





# GAINESVILLE

L-1

WOODS MILL ROAD

G-B

R-II

SMITH DRIVE

RAINEY STREET

WEST AVENUE

Juvenile Court  
Services

Applicant: **SONIA DEL CARMEN**

## VARIANCE REQUEST

Subject Property Address:

878 Rainey Street, NW

Tax Parcel:

01-045-008-012

Request:

Vary the rear yard and right side yard setback requirement on a 0.072+/- acre tract within Residential-II (R-II) zoning for bedroom addition.



Subject Property



Meeting Date: 12/14/2021

Map Prepared: 11/10/2021

0 20 40 Feet

Page 901 of 1097

SCALE: 1" = 40'



# GAINESVILLE



Applicant: **SONIA DEL CARMEN**

## VARIANCE REQUEST

Subject Property Address:

878 Rainey Street, NW

Tax Parcel:

01-045-008-012

Request:

Vary the rear yard and right side yard setback requirement on a 0.072+/- acre tract within Residential-II (R-II) zoning for bedroom addition.



Subject Property

AERIAL FROM 2021



Meeting Date: 12/14/2021

Map Prepared: 11/10/2021

0 20 40 Feet

Page 902 of 1097

SCALE: 1" = 40'

# GENERAL NOTES:

- 1: This Plat has been prepared without the benefit of a current title report. Easements or encumbrances may exist that are not shown on this plat.
- 2: This plat is subject to any restrictions, easements, covenants or restrictions that may exist either written or unwritten.
- 3: Underground utilities not shown hereon may exist. The Surveyor does not take responsibility for absence or presence of any such utilities.
- 4: No Geodetic monuments were found within 500 feet of this site.
- 5: This Plat has been prepared for the exclusive use of the person(s) or entities named hereon.

Rear 14' variance  
Side 4' variance

CITY OF GAINESVILLE  
ZONING: R-II  
FRONT SETBACK - 30'  
SIDE SETBACK - 10'  
REAR SETBACK - 20'

## FIELD DATA:

DATE OF FIELD SURVEY 9-29-21.

THE CALCULATED POSITIONAL  
TOLERANCE BASED ON REDUNDANT  
LINEAR MEASUREMENTS OF  
OBSERVED POSITIONS WAS FOUND  
TO BE 0.00 FEET.

EQUIPMENT:  
ELECTRONIC TOTAL STATION AND NETWORK GPS  
GPS RECEIVER: CHAMPION INSTRUMENTS, PRO,  
SN: 1033458,  
NETWORK: eGPSVRS

TOTAL AREA: 3,156 SQ FT, 0.072 AC

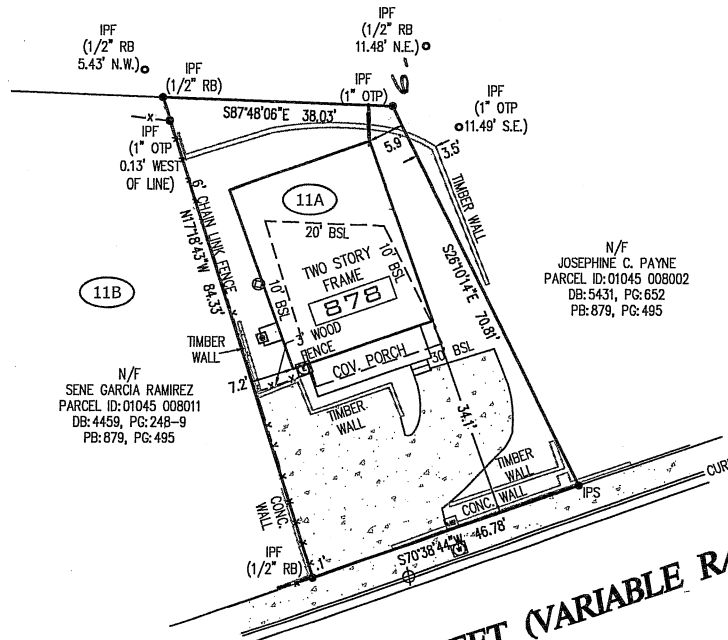
CALCULATED PLAT CLOSURE: 1 FOOT IN 63,749 FEET

## SURVEY DATA:

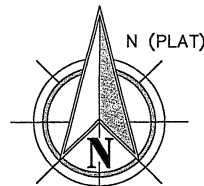
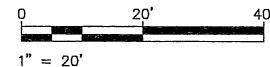
TYPE OF SURVEY: RETRACEMENT  
SOURCE OF TITLE DESCRIPTION FOR SUBJECT  
PROPERTY: DB 8016 PG 159  
PROPERTY OWNER AT TIME OF SURVEY:  
SONIA DEL CARMEN LOPEZ  
PARCEL NUMBER: 01045 008012

REFERENCE: PLAT BOOK 879 PG 495  
DEED BOOK 8016 PG 159

FLOOD HAZARD NOTE: THIS PROPERTY IS  
NOT LOCATED IN A FLOOD HAZARD AREA  
AS DEFINED BY FIRM MAP OF HALL  
COUNTY, GEORGIA 13139C0187G EFFECTIVE  
DATE APRIL 4, 2018



RAINEY STREET (VARIABLE R/W)



## LEGEND

- EOP EDGE OF PAVEMENT (CURB)
- PP POWER POLE
- R/W RIGHT OF WAY
- IPF IRON PIN FOUND
- IPS 1/2" REBAR SET
- SW SIDE WALK
- BOLLARD
- OHP OVERHEAD POWER
- FH FIRE HYDRANT
- CB CATCH BASIN
- MH MANHOLE
- WM WATER METER
- WV WATER VALVE
- GV GAS VALVE
- GM GAS METER
- LP LIGHT POLE
- CONCRETE PAD
- TBX TELEPHONE MARKER
- AC AIR CONDITIONER UNIT
- MB MAIL BOX



PATRICK F. CAREY, R.L.S. #3077  
FOR  
KEYSTONE LAND SURVEYING, INC.  
162 EAST CROGAN STREET  
SUITE F  
LAWRENCEVILLE, GEORGIA 30046  
770.545.8700

This plat is a retracement of an existing parcel or parcels of land and does not subdivide or create a new parcel or make any changes to any real property boundaries. The recording information of the documents, maps, plat, or other instruments which created the parcel or parcels are stated hereon. RECORDATION OF THIS PLAT DOES NOT IMPLY APPROVAL OF ANY LOCAL JURISDICTION, AVAILABILITY OF PERMITS, COMPLIANCE WITH LOCAL REGULATIONS OR REQUIREMENTS, OR SUITABILITY FOR ANY USE OR PURPOSE OF THE LAND. Furthermore, the undersigned land surveyor certifies that this plat complies with the minimum technical standards for property surveys in Georgia as set forth in the rules and regulations of the Georgia Board of Registration for Professional Engineers and Land Surveyors and as set forth in O.C.G.A. Section 15-6-67

|                                                   |      |             |                  |                 |
|---------------------------------------------------|------|-------------|------------------|-----------------|
| REVISIONS                                         |      |             | Date: 10-14-2021 |                 |
|                                                   | Date | Description | By               | Scale: 1" = 20' |
|                                                   |      |             |                  | Drawn By: JTF   |
| BOUNDARY SURVEY FOR SONIA LOPEZ                   |      |             |                  |                 |
| 878 RAINEY STREET, GAINESVILLE, GEORGIA 30501     |      |             |                  |                 |
| LOT 11A, COMER PAYNE SUBDIVISION                  |      |             |                  |                 |
| LAND LOT 154 - DISTRICT 9TH, HALL COUNTY, GEORGIA |      |             |                  |                 |



eFiled and eRecorded  
DATE: 02/04/2021  
TIME: 10:26 PM  
PLAT BOOK: 879  
PAGE: 495 - 495  
FILING FEES: \$10.00  
PART ID: 8016264034  
RECORDED BY: CH  
Charles Baker, C.S.C  
Hall County, GA

#### SURVEYORS CERTIFICATIONS

This plat is a retracement of an existing parcel or parcels of land and does not subdivide or create a new parcel or make any changes to any real property boundaries. The recording information of the documents, maps, plats, or other instruments which created the parcel or parcels are stated hereon. RECORDATION OF THIS PLAT DOES NOT IMPLY APPROVAL OF ANY LOCAL JURISDICTION, AVAILABILITY OF PERMITS, COMPLIANCE WITH LOCAL REGULATIONS OR REQUIREMENTS, OR SUITABILITY FOR ANY USE OR PURPOSE OF THE LAND.

Furthermore, the undersigned land surveyor certifies that this plat complies with the minimum technical standards for property surveys in Georgia as set forth in the rules and regulations of the Georgia Board of Registration for Professional Engineers and Land Surveyors and as set forth in O.C.G.A. Section 15-6-67.

*Kris Manley*  
Kristopher P. Manley, GA #15330

04 JANUARY 2021  
Date



#### DRAWING INFORMATION

D. DATE: 09 OCTOBER 2020 DATE: 04 JANUARY 2021  
DRAWN BY: K.MANLEY CHECKED BY: K.MANLEY  
FILE NAME: 20141V.DWG  
PROJECT NO: 20141 LOPEZ

ATLAS LAND SURVEYING  
& MAPPING, LLC  
97 GRINDLE BROTHERS ROAD  
MURRAYVILLE, GA 30564  
PHONE: 770.532.7203 | EMAIL: kris@atlassam.com  
LSF NO: 001344 (EX.06.30.22)

#### RETRACEMENT SURVEY FOR: COMER PAYNE SUBDIVISION

LOTS 1-13 ~ COMER PAYNE SUBDIVISION  
LAND LOT 154 ~ SEE DISTRICT  
CITY OF GAINESVILLE  
HALL COUNTY, GEORGIA

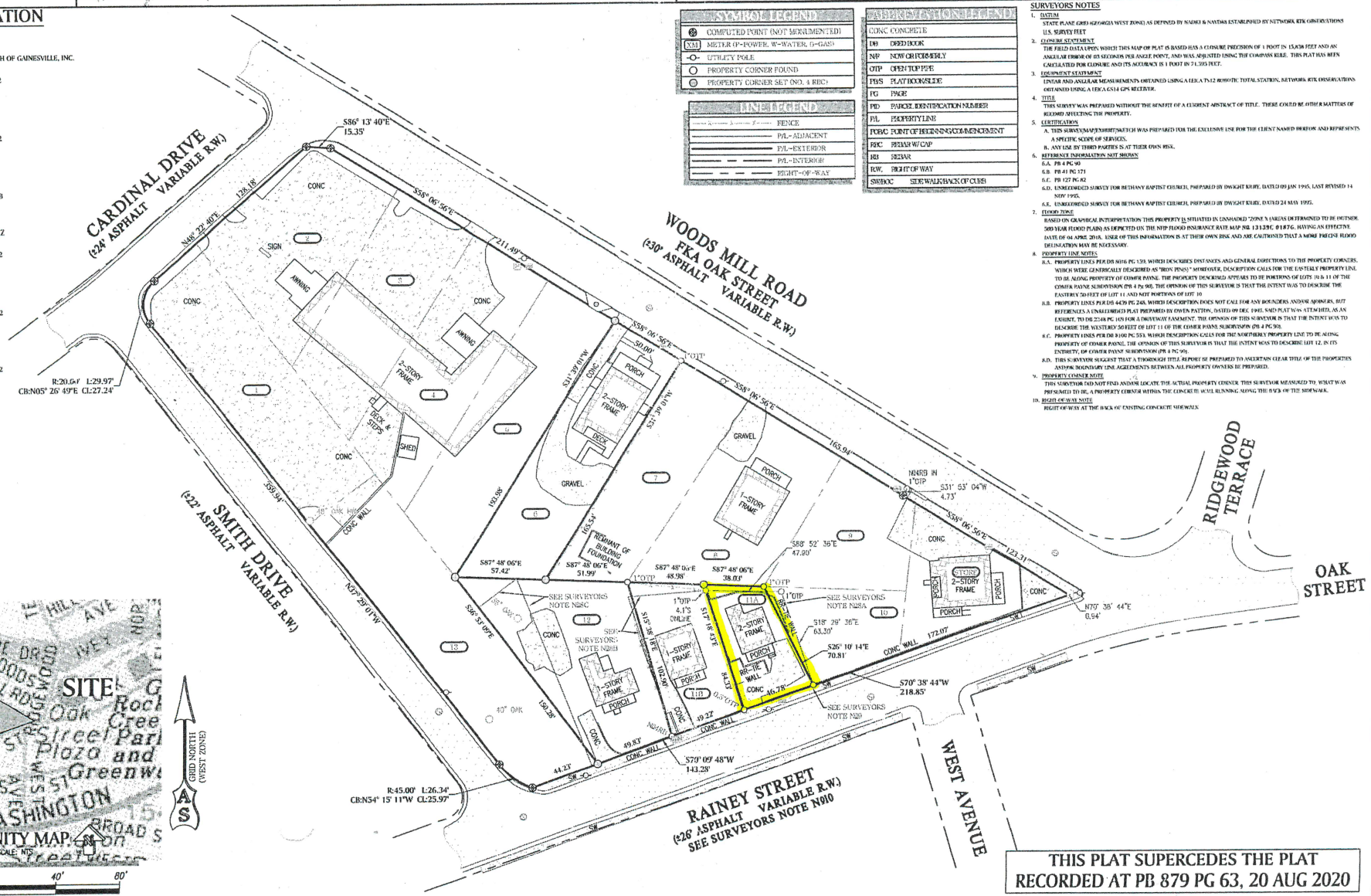
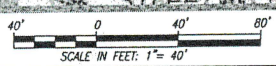
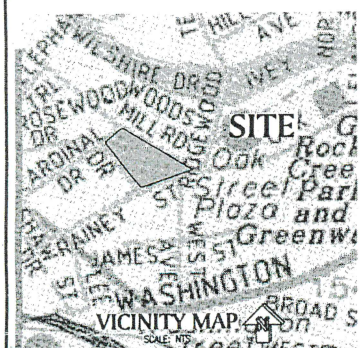
#### REVISIONS

#### SURVEYORS NOTES

1. EXISTING STATE PLANT (CORN) (W/ST) BOUND AS DEFINED BY NAD83 & NAD83 ESTABLISHED BY NETWORK RTK OBSERVATIONS.
2. U.S. SURVEY FEET.
3. CONCRETE SETBACK.
4. THE FIELD DATA (GPS) WHICH THIS MAP OF PLAT IS BASED UPON IS A COMBINATION OF 1 POINT IN EACH FOOT AND AN ANGULAR MEASURE OF 1/4 DEGREE PER 100 FEET. THIS PLAT HAS BEEN CALCULATED FOR CONFORMANCE AND ITS ACCURACY IS 1 FOOT IN 71,000 FEET.
5. EQUIPMENT STATEMENT.
6. LINEAR AND ANGULAR MEASUREMENTS OBTAINED USING A LEICA AT12 PHOTO THEODOLITE, NETWORK RTK OBSERVATIONS OBTAINED USING A TRIMBLE 5600 GPS RECEIVER.
7. TITLE.
8. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A RECORD ABSTRACT OF TITLE. THERE COULD BE OTHER MATTERS OF RECORD AFFECTING THE PROPERTY.
9. CERTIFICATION.
10. A. THIS SURVEY WAS PREPARED FOR THE EXTENSIVE USE FOR THE CLIENT NAMED HEREON AND REPRESENTS A SPECIFIC SCOPE OF SERVICES.
11. B. ANY USE BY THIRD PARTIES IS AT THEIR OWN RISK.
12. C. REFERENCE INFORMATION: SEE SURVEYORS NOTE N90.
13. D. A. PB 4 PG 30
14. E. PB 4 PG 31
15. F. PB 4 PG 32
16. G. PB 4 PG 33
17. H. UNRECORDED SURVEY FOR BETHANY BAPTIST CHURCH, PREPARED BY DWIGHT KYLE, DATED 24 MAR 1995.
18. I. UNRECORDED SURVEY FOR BETHANY BAPTIST CHURCH, PREPARED BY DWIGHT KYLE, DATED 24 MAR 1995.
19. J. FLOOD ZONE.
20. K. BASED ON CURRENT INFORMATION IN THIS PROPERTY IS SITUATED IN UNCLASSIFIED ZONE 1 (AREA DETERMINED TO BE WITHIN 300 YEAR FLOOD PLAIN) AS DETERMINED BY THE NIP FLOOD INSURANCE RATE MAP NO. 12122C, 01/17/07, HAVING AN EFFECTIVE DATE OF 04 APR 2004. USE OF THIS INFORMATION IS AT THEIR OWN RISK AND ARE CAUTIONED THAT A MORE PRECISE FLOOD DELINEATION MAY BE NECESSARY.
21. L. PROPERTY LINE NOTES.
22. M. A. PROPERTY LINES PER DEED NO. 130, WHICH DESCRIBES DISTANCES AND GENERAL DIRECTIONS TO THE PROPERTY CORNERS, WHICH WERE GENERALLY DESCRIBED AS "IRON PINS" AND/OR "STAKES". DESCRIPTION CALLS FOR THE EXISTING PROPERTY LINE TO BE ALONG PROPERTY OF COMER PAYNE. THE PROPERTY DESCRIBED APPEARS TO BE BOUNDARIES OF LOTS 1 & 11 OF THE COMER PAYNE SUBDIVISION (PB 4 PG 30). THE OPINION OF THIS SURVEYOR IS THAT THE INTENT WAS TO DESCRIBE THE EXISTING SURVEY OF LOT 11 AND NOT PORTIONS OF LOT 10.
23. N. A. PROPERTY LINES PER DEED NO. 130, WHICH DESCRIBES DISTANCES AND GENERAL DIRECTIONS TO THE PROPERTY CORNERS, WHICH WERE GENERALLY DESCRIBED AS "IRON PINS" AND/OR "STAKES". DESCRIPTION CALLS FOR THE EXISTING PROPERTY LINE TO BE ALONG PROPERTY OF COMER PAYNE. THE PROPERTY DESCRIBED APPEARS TO BE BOUNDARIES OF LOTS 1 & 11 OF THE COMER PAYNE SUBDIVISION (PB 4 PG 30). THE OPINION OF THIS SURVEYOR IS THAT THE INTENT WAS TO DESCRIBE THE EXISTING SURVEY OF LOT 11 AND NOT PORTIONS OF LOT 10.
24. O. A. PROPERTY LINES PER DEED NO. 130, WHICH DESCRIBES DISTANCES AND GENERAL DIRECTIONS TO THE PROPERTY CORNERS, WHICH WERE GENERALLY DESCRIBED AS "IRON PINS" AND/OR "STAKES". DESCRIPTION CALLS FOR THE EXISTING PROPERTY LINE TO BE ALONG PROPERTY OF COMER PAYNE. THE PROPERTY DESCRIBED APPEARS TO BE BOUNDARIES OF LOTS 1 & 11 OF THE COMER PAYNE SUBDIVISION (PB 4 PG 30). THE OPINION OF THIS SURVEYOR IS THAT THE INTENT WAS TO DESCRIBE THE EXISTING SURVEY OF LOT 11 AND NOT PORTIONS OF LOT 10.
25. P. THIS SURVEYOR SUGGESTS THAT A THOROUGH TITLE REPORT BE PREPARED TO ASCERTAIN CLEAR TITLE OF THE PROPERTY AND ANY WORKAROUND AGREEMENTS BETWEEN ALL PROPERTY OWNERS BE PREPARED.
26. Q. PROPERTY CORNER NOTE.
27. R. THIS SURVEYOR HAS NOT FOUND OR LOCATE THE ACTUAL PROPERTY CORNER. THIS SURVEYOR MEASURED TO WHAT WAS PRESENTED TO BE A PROPERTY CORNER WITHIN THE CONCRETE WALL BEING USING THE 3/4" IRON ROD IN THE SOUTHWALL.
28. S. RIGHT-OF-WAY NOTE.
29. T. RIGHT-OF-WAY AT THE BACK OF EXISTING CONCRETE SIDEWALK.

#### LOT INFORMATION

- LOTS 1-5 & 13  
1.29 ACRES  
NF BETHANY BAPTIST CHURCH OF GAINESVILLE, INC.  
DB 2644 PG 50  
PID: 01045000008, ZONED: R2
- LOT 6  
0.21 ACRE  
NF THE BEAR GROUP, LLC  
DB 7450 PG 346  
PID: 01045000003, ZONED: R2
- LOTS 7-10 & STORE  
0.69 ACRE  
NF JOSEPHINE C. PAYNE  
DB 5431 PG 632  
PID: 01045000002, ZONED: G0
- LOT 11A  
0.07 ACRE  
NF SONIA DEL CARMEN LOPEZ  
DB 8016 PG 139  
PID: 01045000012, ZONED: R2
- LOT 11B  
0.10 ACRE  
NF SENE G. RAMIREZ  
DB 4459 PG 248  
PID: 01045000011, ZONED: R2
- LOT 12  
0.21 ACRE  
NF AMELIA JARAMILLO  
DB 8100 PG 353  
PID: 01045000010, ZONED: R2



THIS PLAT SUPERCEDES THE PLAT  
RECORDED AT PB 879 PG 63, 20 AUG 2020

BK8016PG159

HALL COUNTY, Georgia  
Real Estate Transfer Tax

Paid \$ 90.00

Date 12/19/17

Charles Baker  
Superior Court Clerk

By NB

PT61 069- 2017-009286

FILED  
HALL CO., GA

17 DEC 19 PM 3:33

CHARLES BAKER, CLERK  
SUPERIOR-STATE COURT

BY NB

After Recording Return to:  
R. Leah Wright  
3292 Thompson Bridge Rd  
Suite 199  
Gainesville, Georgia 30506  
(770)540-2231



**WARRANTY DEED**

STATE OF GEORGIA  
COUNTY OF HALL

08C-0282

THIS INDENTURE, Made this 13th day of October, 2017 between

BEACH NEST, LLC

of the State of Georgia, as party or parties of the first part, hereinafter called Grantor, and

SONIA DEL CARMEN LOPEZ

As party or parties of the second part, hereinafter called Grantee (the words "Grantor" and "Grantee" to include their respective heirs, successors, and assigns where the context requires or permits).

WITNESSETH that: Grantor, for and in consideration of the sum of TEN AND 0/100 DOLLARS AND GOOD AND VALUABLE CONSIDERATION in hand paid at and before the Sealing and delivery of these presents, the receipt whereof is hereby acknowledged, has granted, bargained, sell, alien, convey and confirm unto the said Grantee the following described property:

All that tract or parcel of land lying and being in the City of Gainesville, Hall County, Georgia, known as 878 Rainey Street, and lying on the north side of Rainey Street and being more fully described as follows:

BEGINNING at an iron pin at the curb line of Rainey Street and the center of a driveway and at the corner of the property heretofore sold by C.H. Martin, Sr. and C.H. Martin, Jr, to Sam Lance; thence easterly along Rainey Street 50 feet, more or less, to an iron pin at curb line of Rainey Street at corner of property of Comer Payne; thence in a northerly direction along the Comer Payne line 69 feet to an iron pin; thence in a westerly direction 50 feet, more or less, to an iron pin on Sam Lance line; thence in a southerly direction 84 feet, more or less, along the Sam Lance line to the beginning corner.

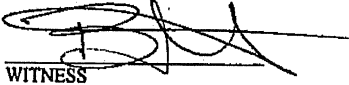
TO HAVE AND TO HOLD the said tract or parcel of land, with all and singular the rights, Members, and appurtenances thereof, to the same being, belonging, or in anywise appertaining, to the only proper use, benefit and behalf of the said Grantee forever in FEE SIMPLE.

BK8016PG160

AND THE SAID Grantor will warrant and forever defend the right and title to the above Described property unto the said Grantee against the claims of all persons whomsoever.

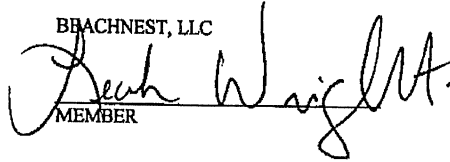
IN WITNESS WHEREOF, the Grantor has signed and sealed this deed, the day and year above written.

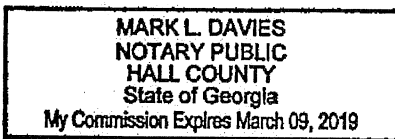
Signed, sealed and delivered  
in the presence of:

  
WITNESS

  
NOTARY PUBLIC

BRACHNEST, LLC

  
MEMBER





## Variance Request

### STATEMENT OF HARDSHIP

The Gainesville Planning and Appeals Board has the authority, in specific cases, to grant variances from the terms of the Unified Land Development Code of the City of Gainesville, Georgia, when the variance will not be contrary to the public interest where, owing to special conditions, a literal enforcement of the Unified Land Development Code will, in specific cases, result in unnecessary hardship and so that the resolution shall be observed, public safety and welfare secured, and substantial justice done. The authority to grant such variances shall be limited to those instances where a hardship is clearly established as required by the Unified Land Development Code. Variances may be granted only upon a finding by the Gainesville Planning and Appeals Board that:

Describe how each situation listed below relates to your application.

1) There are extraordinary and exceptional conditions pertaining to the particular piece of property in question because of its size, shape, or topography. (The hardship must relate to the physical character of the lot and not to a personal or economic hardship.)

The property is very small and narrow.

2) The application of the requirements of this resolution to this particular property would create an unnecessary hardship.

The existing home was not constructed by the applicant.

The home is located close to the rear and side property line.

3) There are conditions that are peculiar to the property which adversely affect its reasonable use or usability as currently zoned.

The property is very small and is nonconforming in size.

4) Relief, if granted, would not cause substantial detriment to the public good or impair the purposes and intent of this Ordinance. For example, granting the variance would not confer any special privilege that is denied by this regulation to other property in the same zoning district. Such conditions are not the result of any actions of the property owner.

The proposed addition will allow for two bedrooms to be expanded.

The adjacent properties will not be impacted by the improvements to the home.

5) There must be a proved hardship by showing beyond a doubt the inability to make a reasonable use of the land if the zoning ordinance were applied literally.

The size and dimensions of the property impact the ability to improve our home.

6) The hardship cannot be self-created; e.g., as in a case where the lot was purchased with the knowledge of an existing restriction.

We purchased the property as is and were not aware of the setback requirements. There was a mistake on the original plat.

I hereby certify that the above information and all attached information is true and correct.

Signature of Applicant



Date

10/29/21





**Date Submitted:** 11/29/2021

**Presenter:** Matt Tate

**Item of Business:** Request from **Federal Construction** to vary the front yard setback requirement from Race Street on a 0.31± acre tract located on the southwest side of the intersection of Broad Street and Race Street and the northwest side of the intersection of Jesse Jewell Parkway and Race Street (a/k/a **430 Broad Street, SE**), having a zoning of General Business (G-B).  
 Ward Number: Four  
 Tax Parcel Number(s): 01-008-002-001  
 Request: Restaurant

**Meeting Date:** 12/14/2021

**Purpose of Request:**

The applicant is proposing to vary the front yard setback from Race Street from 40-feet to zero feet (0'). The purpose of the request is to construct a two-story, 6,000 square foot restaurant building with a drive-thru pick-up window that will replace an existing 1,500 square foot office/garage building previously occupied by Stat Delivery Services. The restaurant will serve breakfast, lunch, and dinner, seven days a week to include Mediterranean cuisine, brick oven pizza, coffee, desserts, and ice cream. The applicant intends to improve an existing access drive from Broad Street and two driveways from Race Street. The property owner is basing the hardship on the size and width of the lot. Adjacent uses include medical offices, AT&T office, retail shopping center and Cadence Bank.

**History/Background:**

**Facts & Issues for Consideration:**

**Department Recommendation:**

Planning staff recommended approval with two conditions. See the Staff Recommendation report for details.

**Department Director:**

Rusty Ligon

**If funding is involved, are funds approved within the current budget?**

N/A

**Amount Requested:**

**Source of Funds:**

**Finance Comments:**

**Administrative Comments:**

**ATTACHMENTS:**

| Description                                          | Type            |
|------------------------------------------------------|-----------------|
| <input type="checkbox"/> Staff Recommendation Report | Report          |
| <input type="checkbox"/> Location Maps               | Backup Material |
| <input type="checkbox"/> Site Plan                   | Backup Material |
| <input type="checkbox"/> Statement of Hardship       | Backup Material |
| <input type="checkbox"/> Building Renderings         | Backup Material |

**GAINESVILLE PLANNING and APPEALS BOARD  
STAFF RECOMMENDATION**

**Applicant and Property Owner**..... Federal Construction  
**Property Owner** ..... Franze Properties II, LLC  
**Location**..... 430 Broad Street, SE  
**Request**..... Vary the front yard setback from Race Street  
**Size** ..... 0.31± acre  
**Ward**..... Four  
**Proposed Use**..... Restaurant  
**Planning Division Staff Recommendation** ..... **Approval, with conditions**  
**Date**..... December 14, 2021

---

▪ **Request**

The applicant is proposing to vary the front yard setback from Race Street from 40-feet to zero feet (0') for a restaurant building. Specifically, the proposed building footprint is setback fourteen feet (14') from the front property line. The proposed exterior stairwell protruding from the building extends to the property line. The proposed restaurant building is two-stories in height and 6,000± square feet in size. The restaurant will serve breakfast, lunch, and dinner, seven days a week to include Mediterranean cuisine, brick oven pizza, coffee, desserts, and ice cream. The applicant intends to improve an existing access drive from Broad Street and the two driveways from Race Street.

▪ **Background Information and Existing Conditions**

The subject property contains a 1,500 square foot office/garage building previously occupied by Stat Delivery Services that will be demolished. According to tax records the building was originally constructed in 1955. The property is mostly impervious with minimal vegetation. Adjacent uses include medical offices, AT&T office, retail shopping center and Cadence Bank. As well, Brenau University is located just north of the property.

▪ **Significant Factors**

The Ordinance requires that the applicant's claim for hardship must be based on the size or shape of the lot, its topography, or other physical characteristics inherent in the lot itself and not on the desired aesthetics. Further, the Code states that a variance shall not be granted as a convenience to the applicant or as a way to gain any advantage or interest over similarly zoned properties.

The property owner is basing the hardship on the three road frontages and the narrow width of the lot. The applicant states the lot is unbuildable given the front yard setback requirements and the depth of the lot from Race Street.

In 1998, the subject property was granted a front setback variance from 35-feet to 27-feet from Race Street to construct a new medical office building fronting closer to Jesse Jewell Parkway. The building was never constructed.

- **Other Departmental Comments**

There are no other departmental comments for this request.

- **Supporting Documents**

Statement of Hardship, Site Plan, Architectural Rendering

- **Analysis**

**(1) Are there extraordinary and exceptional conditions pertaining to the particular piece of property in question because of its size, shape or topography?**

The property is small in size and is very narrow measuring 47-feet deep by 305 feet long fronting Race Street. The property is relatively flat but slopes downward toward Broad Street.

**(2) Would the application of the Unified Land Development Code to this particular piece of property create an unnecessary hardship?**

The purpose of the building setback requirement is to provide for uniformity of building placement, sufficient access, as well as to provide for adequate separation from neighboring properties for fire safety.

The Unified Land Development Code requires a 40-foot front yard setback and a zero foot (0') setback adjacent to commercially zoned properties. The subject property is bound on three sides by Jesse Jewell Parkway, Race Street and Broad Street and is adjacent to property zoned General Business (G-B). The property is somewhat limited due to the width of the lot and the front yard setback requirements.

**(3) Are there conditions that are peculiar to the property which adversely affect its reasonable uses or usability as currently zoned?**

The property is zoned for commercial uses including a restaurant. The existing building is considered a nonconforming structure as it is setback only 18± feet from Race Street. The applicant could improve the existing nonconforming building for a restaurant but would be unable to expand the building without a setback variance.

**(4) Would relief, if granted, cause substantial detriment to the public good or impair the purposes and intent of this ordinance?**

The proposed restaurant building would not appear to cause detriment to the public good or impair the purpose of the ordinance. The surrounding area includes numerous buildings with zero foot (0') setbacks given that the properties are older and are located close to downtown. Examples of this include the adjacent AT&T office building across Race Street and the neighboring medical office building fronting Broad Street. Given the proposed location of the building, there should be no fire or safety building separation issues if the variance were to be approved.

**(5) There must be a proved hardship by showing beyond a doubt the inability to make a reasonable use of the land if the zoning ordinance were applied literally.**

The narrowness of the lot and the three front yard setbacks are considered a physical hardship. In order to construct a new building, a front yard setback variance would be necessary regardless of the proposed building size or location.

**(6) The hardship cannot be self-created; e.g., as in a case where the lot was purchased with the knowledge of an existing restriction.**

The applicant was made aware of the front yard setback requirements during their due diligence process. According to the applicant, the lot is under contract to purchase with a contingency on the variance.

▪ **Staff Recommendation**

The Planning Division staff is recommending **conditional approval** of this variance request based on the narrow shape of the subject property and the three front yard building setbacks.

**Conditions**

- 1. The proposed building shall be consistent with the architectural rendering provided with this variance application.**
- 2. Upon the discretion of the Community and Economic Development Director and Public Works Director, the proposed exterior stairwell shall be sufficiently setback from Race Street so as not to cause a safety hazard or impede traffic circulation within the property.**





# GAINESVILLE

Lib

PUD

Gainesville Heart  
& Vascular Group

BROAD STREET

Robinson  
Techniques

Downtown  
Package  
Store

G-B

RACE STREET

Hearing  
Life

Jimmy  
Johns

Nancy  
Nails

AT&T Store

Regions Building

JESSE JEWELL PARKWAY

R-II

O-I

Cadence  
Bank

Applicant: **FEDERAL CONSTRUCTION**

## VARIANCE REQUEST

Subject Property Address:

430 Broad Street, SE

Tax Parcel:

01-008-002-001

Request:

Vary front yard setback requirement from Race Street on a 0.31+/- acre tract within General Business (G-B) zoning for a restaurant.



Subject Property



Meeting Date: 12/14/2021

Map Prepared: 11/10/2021

0 50 100 Feet

Page 913 of 1097

SCALE: 1" = 100'





# GAINESVILLE



Applicant: **FEDERAL CONSTRUCTION**

## VARIANCE REQUEST

Subject Property Address:

430 Broad Street, SE

Tax Parcel:

01-008-002-001

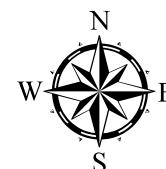
Request:

Vary front yard setback requirement from Race Street on a 0.31+/- acre tract within General Business (G-B) zoning for a restaurant.



Subject Property

AERIAL FROM 2021



Meeting Date: 12/14/2021

Map Prepared: 11/10/2021

0 50 100 Feet

Page 914 of 1097

SCALE: 1" = 100'



**DES DAVIS**  
 ENGINEERING & SURVEYING  
 133 PROMINENCE COURT  
 SUITE 210  
 DAWSONVILLE, GA 30534  
 PHONE: (706) 265-1234  
 FAX: (678) 248-9177  
 DAVISENGINEERS.COM

| REVISION | DATE | DESCRIPTION |
|----------|------|-------------|
|          |      |             |
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VARIANCE PLAN FOR:  
 430 BROAD STREET  
 CITY OF GAINESVILLE  
 HALL COUNTY, GEORGIA

DRAWN BY: NAP  
 CHECKED BY: JKD  
 LAND LOT: -  
 DISTRICT: -  
 SECTION: -  
 CITY: GAINESVILLE  
 COUNTY: HALL  
 DATE: 10/28/2021

SHEET NO.  
 1 OF 1  
 PROJECT NO.  
 21-485

PARCEL #: 01008 002001  
 TOTAL ACREAGE: 0.31  
 ZONING: G-B

RACE ST SE

JESSE JEWELL PKWY

BROAD ST

PROPOSED PARKING

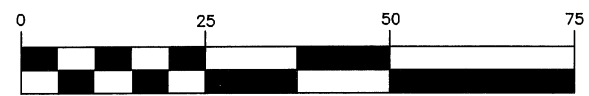
PROPOSED PARKING

PROPOSED 3000 SQ FT BUILDING

N/F RODOLFO  
 PARCEL #01008 002002  
 ZONING: H-B



GRAPHIC SCALE



( IN FEET )  
 1 inch = 25 ft.

## Variance Request

### STATEMENT OF HARDSHIP

The Gainesville Planning and Appeals Board has the authority, in specific cases, to grant variances from the terms of the Unified Land Development Code of the City of Gainesville, Georgia, when the variance will not be contrary to the public interest where, owing to special conditions, a literal enforcement of the Unified Land Development Code will, in specific cases, result in unnecessary hardship and so that the resolution shall be observed, public safety and welfare secured, and substantial justice done. The authority to grant such variances shall be limited to those instances where a hardship is clearly established as required by the Unified Land Development Code. Variances may be granted only upon a finding by the Gainesville Planning and Appeals Board that:

Describe how each situation listed below relates to your application.

1) There are extraordinary and exceptional conditions pertaining to the particular piece of property in question because of its size, shape, or topography. (The hardship must relate to the physical character of the lot and not to a personal or economic hardship.)

The subject lot, like most of the lots on this block is long and narrow. The lot is 50 feet wide. The current setback requirements are unreasonable for this particular piece and make it unbuildable.

2) The application of the requirements of this resolution to this particular property would create an unnecessary hardship.

The current setback requirements render this piece of property virtually unbuildable. The current setbacks are unreasonable for this lot in this area.

3) There are conditions that are peculiar to the property which adversely affect its reasonable use or usability as currently zoned.

The current zoning is fine for the intended use. The setbacks are the problem.

4) Relief, if granted, would not cause substantial detriment to the public good or impair the purposes and intent of this Ordinance. For example, granting the variance would not confer any special privilege that is denied by this regulation to other property in the same zoning district. Such conditions are not the result of any actions of the property owner.

If granted, the change would make the building more conforming to surrounding properties. The current building on the subject lot and the building directly next door both have closer to the setbacks we seek rather than the setbacks currently required.

5) There must be a proved hardship by showing beyond a doubt the inability to make a reasonable use of the land if the zoning ordinance were applied literally.

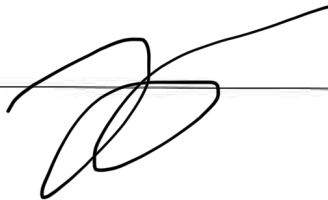
The lot is 50 feet wide. The current side setbacks are 20 feet each. The usable space with out overhang is 10 feet. This is not reasonable for this or any other possible building project.

6) The hardship cannot be self-created; e.g., as in a case where the lot was purchased with the knowledge of an existing restriction.

The lot is under contract to purchase, with a contingency on a variance.

I hereby certify that the above information and all attached information is true and correct.

Signature of Applicant



Date

11-23-21

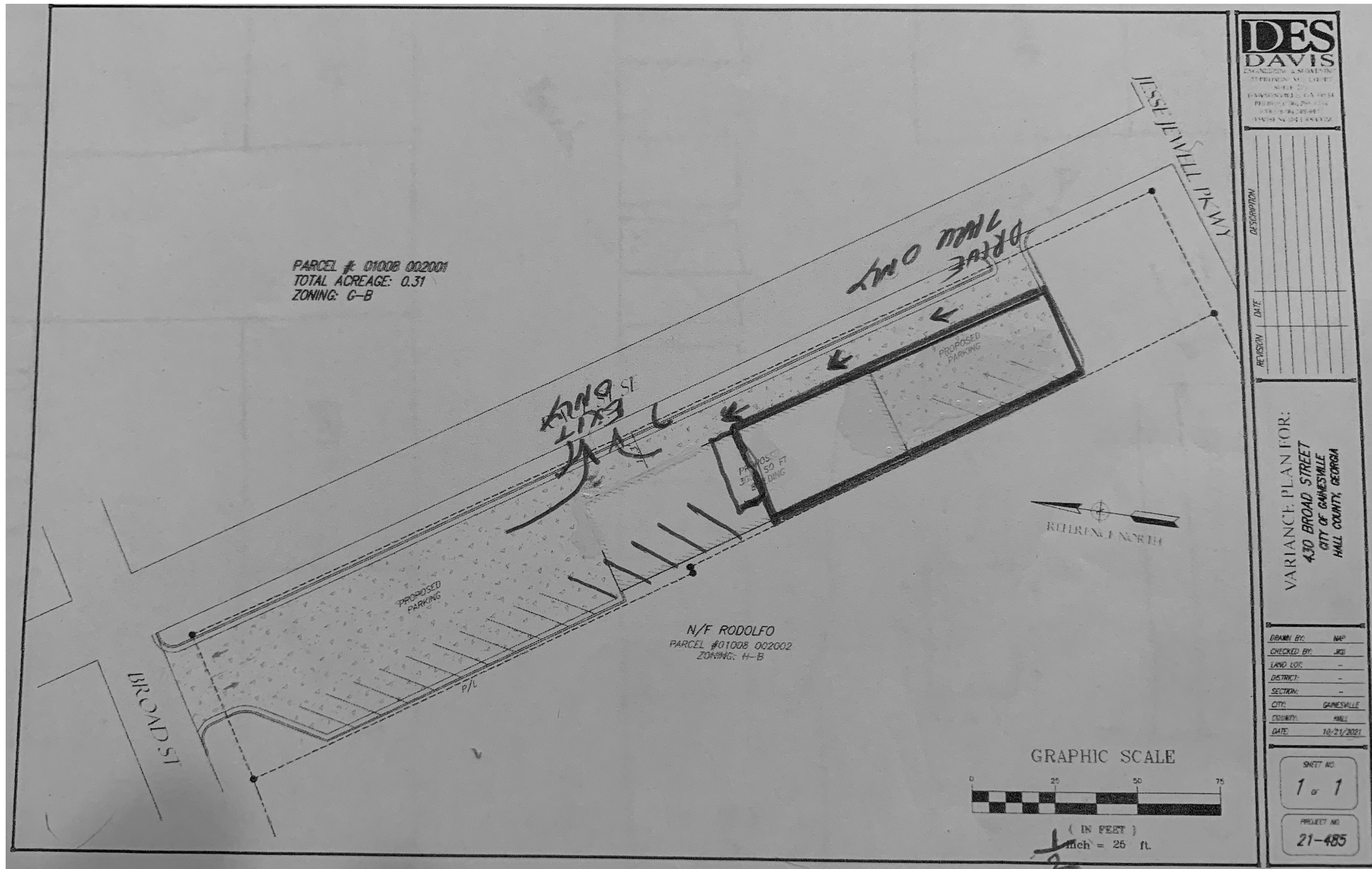
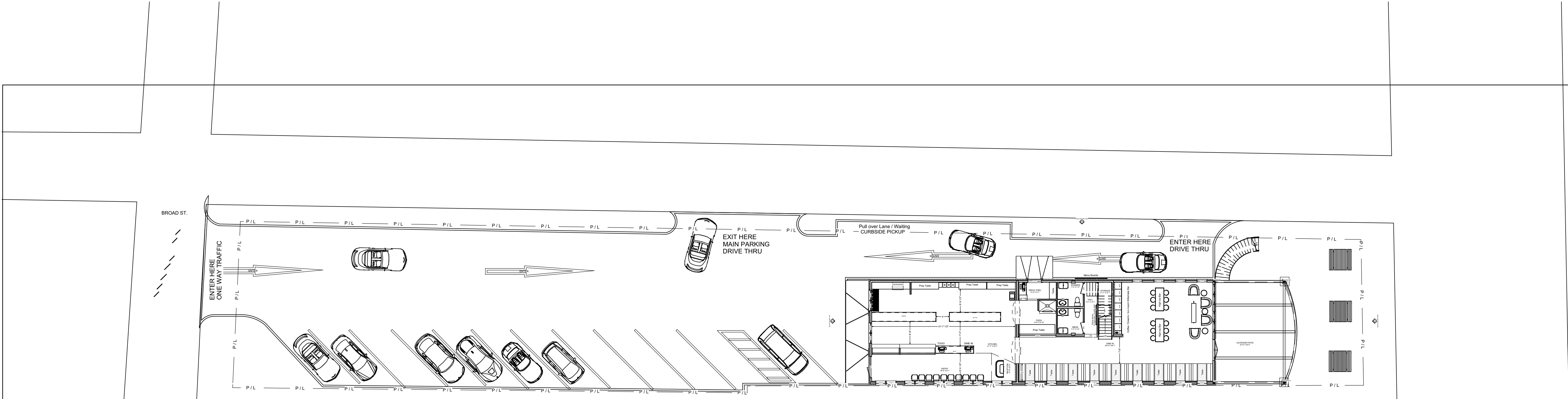


Drawings are for Architectural and General building purposes only. All structural items (beams, footings etc..) shall be sized by person knowledgeable in this field.

1) ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL APPLICABLE CODES 2) IT IS THE RESPONSIBILITY OF THE CONTRACTOR/BUILDER/ OWNER TO CHECK FOR ANY ERROR OR OMISSIONS TO THE PLANS. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DIMENSIONS. 3) VERIFY LOCATION OF ALL ELECTRICAL FIXTURES AND OUTLETS. 4) VERIFY ALL BEAM SIZES AND LOCATIONS. 5) VERIFY GIRDER TRUSS LOCATION AND POINT LOADS. 6) VERIFY ALL FOOTING PAD LOCATIONS AND SIZES.

To the best of my knowledge these plans are drawn to comply with owner's and/ or builder's specifications and any changes made on them after prints are made will be done at the owner's and / or builder's expense and responsibility. The contractor shall verify all dimensions and enclosed drawing. VISUAL BUILDING PLANS is not liable for errors once construction has begun. While every effort has been made in the preparation of this plan to avoid mistakes, the maker can not guarantee against human error. The contractor of the job must check all dimensions and other details prior to construction and be solely responsible thereafter.

SITE PLAN IS FOR GENERAL INFO  
ACTUAL SURVEY SHOULD BE MADE  
TO VERIFY BUILDING LOCATION / POSITION



RELEASED FOR CONSTRUCTION 6-24-2021

Project:  
Restaurant  
430 broad Street  
Gainesville, Ga. 30507  
Drawn for : Federal Construction

Site Plan

DRAWINGS PROVIDED BY: DARREN SMITH  
VISUAL BUILDING PLANS  
GAINESVILLE, GA. 30506  
678-467-0734  
darren@visualbuildingplans.com

DATE:  
11/23/2021

SCALE:  
3/16" = 1' - 0"

SHEET:  
2

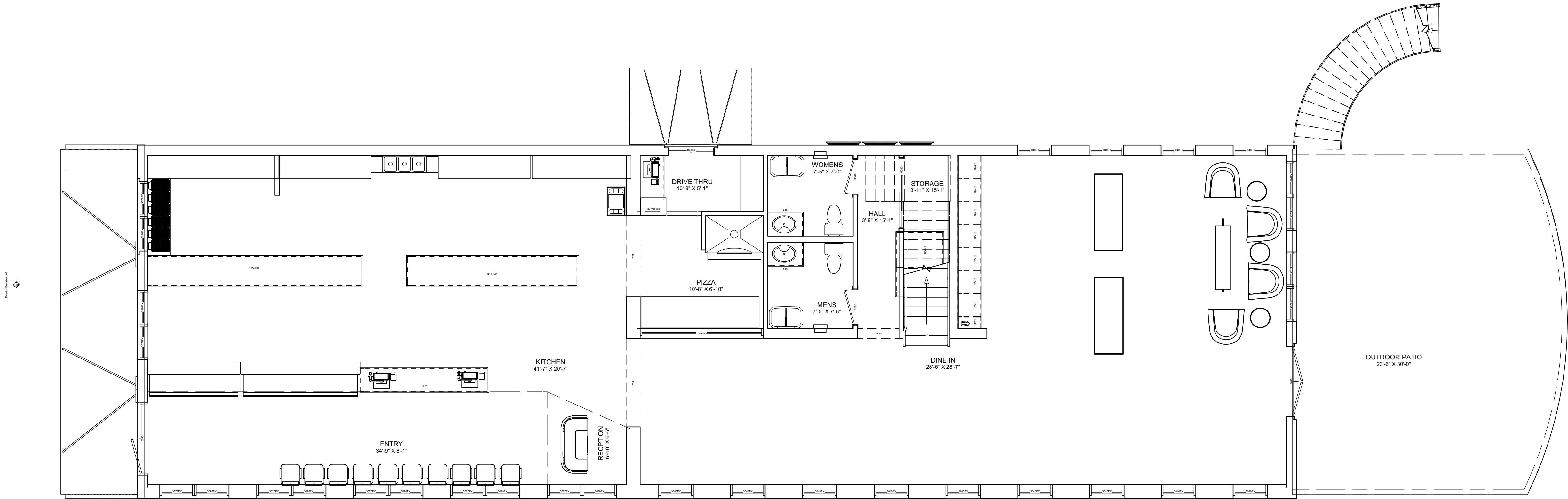
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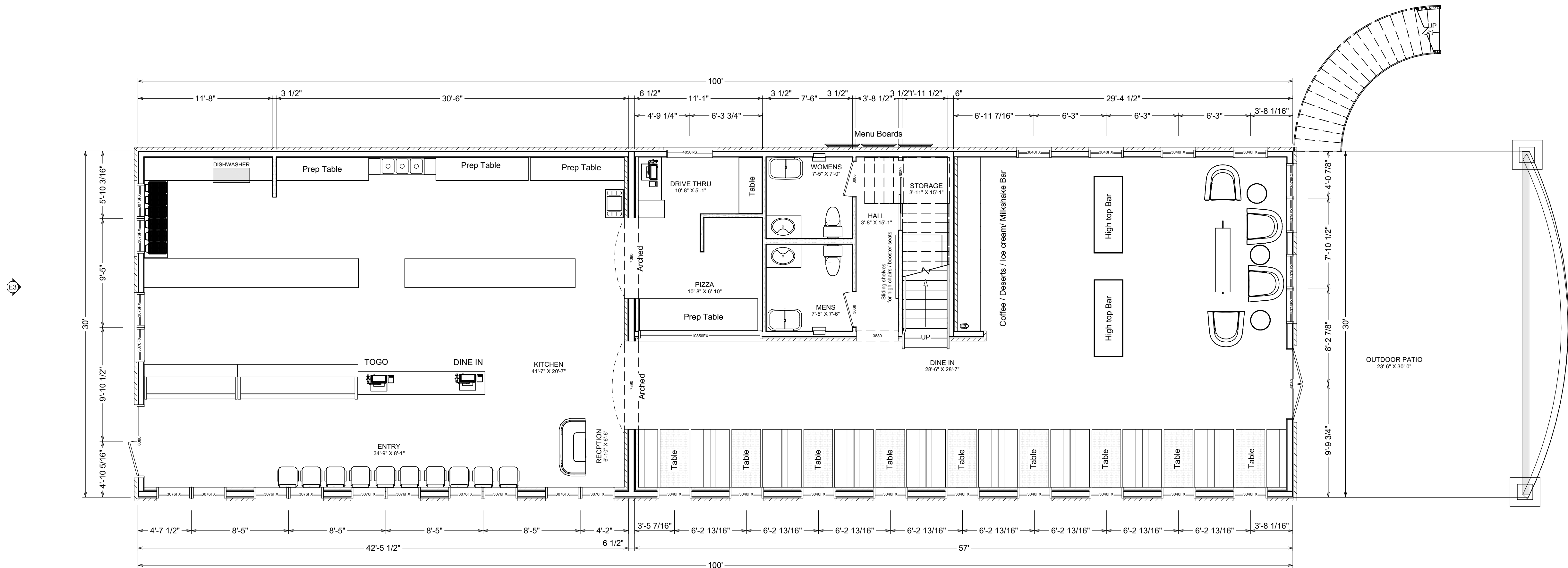
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1st Floor



1st Floor

RELEASED FOR CONSTRUCTION 6-24-2021

Project:  
Restaurant  
430 broad Street  
Gainesville, Ga. 30507  
Drawn for : Federal Construction

Main Level  
layout

DRAWINGS PROVIDED BY: DARREN SMITH  
VISUAL BUILDING PLANS  
GAINESVILLE, GA. 30506  
678-467-0734  
darren@visualbuildingplans.com

DATE:  
11/23/2021

SCALE:  
3/16" = 1' - 0"

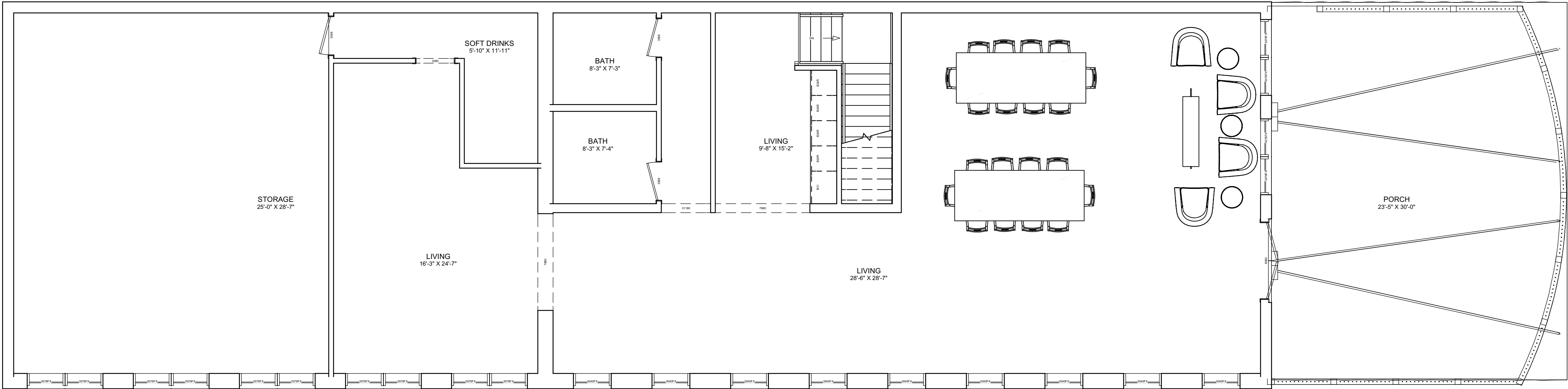
SHEET:  
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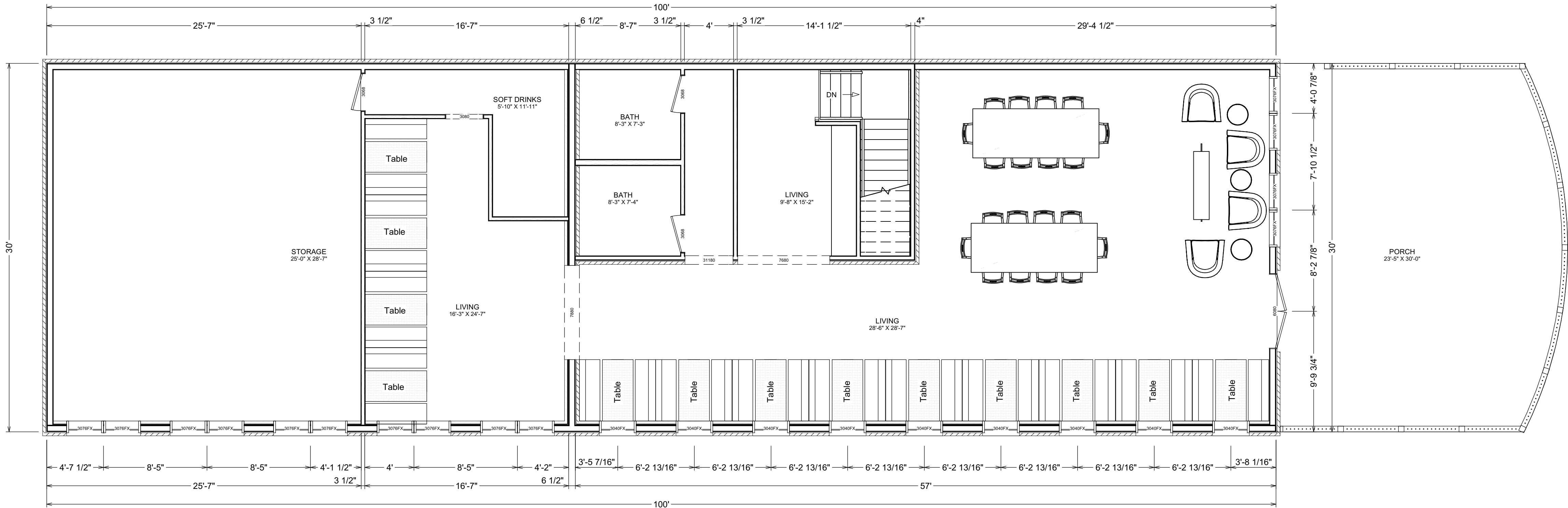
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2nd Floor



LIVING AREA  
2162 SQ FT

2nd Floor

RELEASED FOR CONSTRUCTION 6-24-2021

Project:  
Restaurant  
430 broad Street  
Gainesville, Ga. 30507  
Drawn for : Federal Construction

Second Level  
layout

DRAWINGS PROVIDED BY: DARREN SMITH  
VISUAL BUILDING PLANS  
GAINESVILLE, GA. 30506  
678-467-0734  
darren@visualbuildingplans.com

DATE:

11/23/2021

SCALE:

3/16" = 1' - 0"

SHEET:

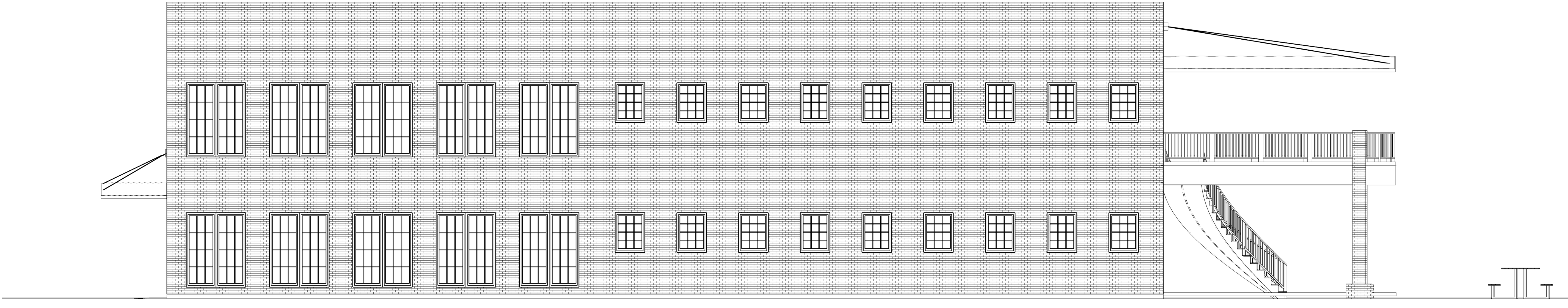
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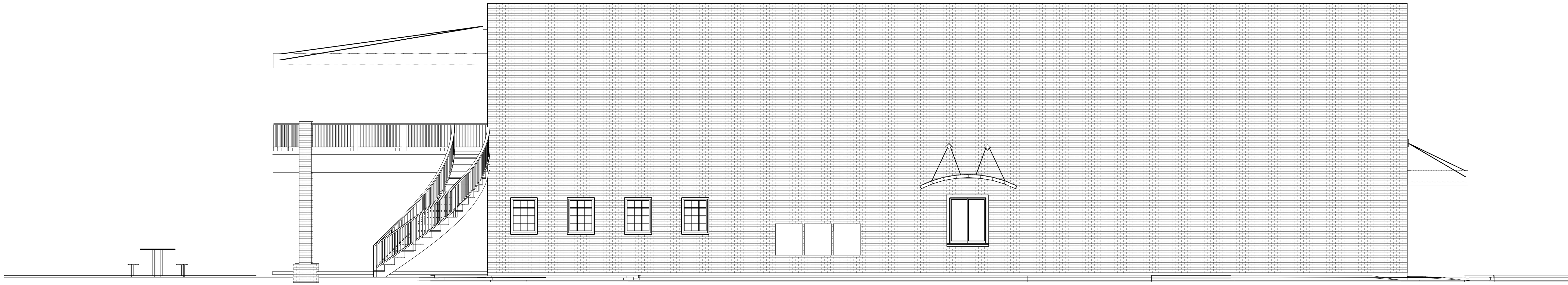
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Exterior Elevation Front



Exterior Elevation Back

RELEASED FOR CONSTRUCTION 6-24-2021

Project:  
Restaurant  
430 broad Street  
Gainesville, Ga. 30507  
Drawn for : Federal Construction

FRONT & REAR  
ELEVATIONS

DRAWINGS PROVIDED BY: DARREN SMITH  
VISUAL BUILDING PLANS  
GAINESVILLE, GA. 30506  
678-467-0734  
darren@visualbuildingplans.com

DATE:

11/23/2021

SCALE:

3/16" = 1' - 0"

SHEET:

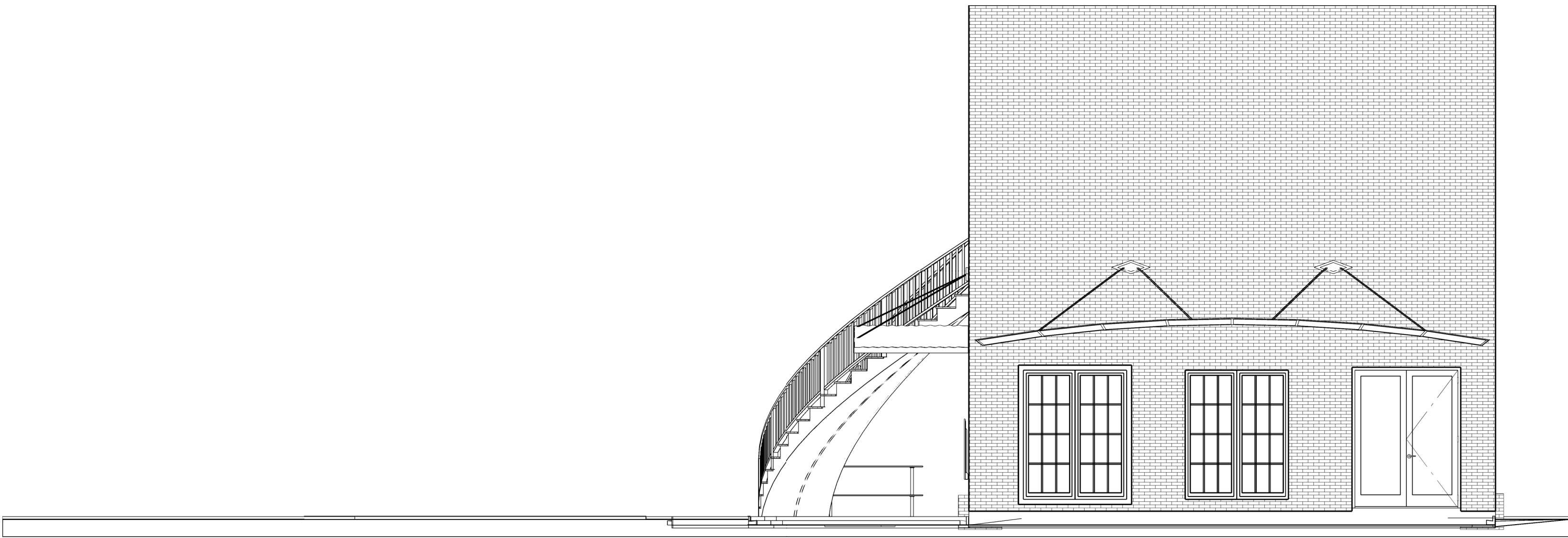
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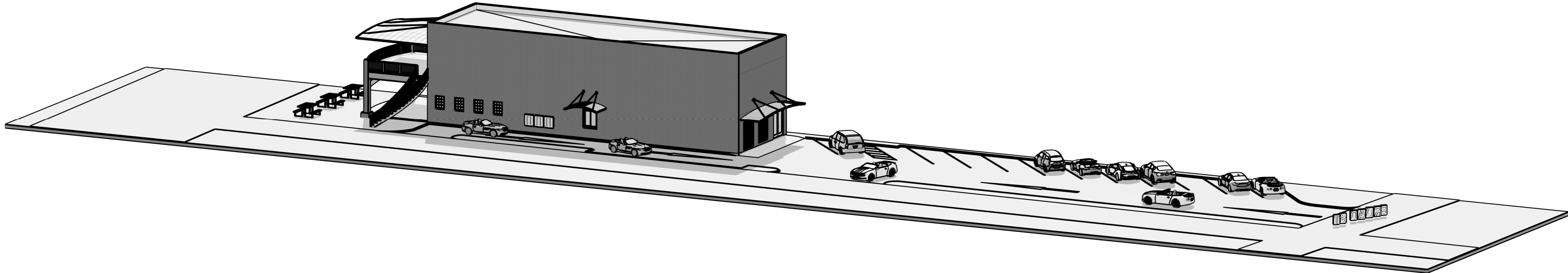
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Exterior Elevation Left



Exterior Elevation Right



Camera 1

RELEASED FOR CONSTRUCTION 6-24-2021

Project:  
Restaurant  
430 broad Street  
Gainesville, Ga. 30507  
Drawn for : Federal Construction

LEFT & RIGHT  
ELEVATIONS

DRAWINGS PROVIDED BY: DARREN SMITH  
VISUAL BUILDING PLANS  
GAINESVILLE, GA. 30506  
678-467-0734  
darren@visualbuildingplans.com

DATE:

11/23/2021

SCALE:

3/16" = 1' - 0"

SHEET:

6

**Date Submitted:** 11/29/2021

**Presenter:** Matt Tate

**Item of Business:** Request from **Moez Hasni** to annex a 5.503± acres tract located on the northeast corner of Jesse Jewell Parkway and Crescent Drive, having frontage on Exit 24/ I-985 (a/k/a **374 and 400 Crescent Drive**) and to establish zoning as General Business (G-B).  
Ward Number: Two  
Tax Parcel Number(s): 15-033C-000-077  
Request: Retail shopping center

**Meeting Date:** 12/14/2021

**Purpose of Request:**

The applicant is proposing to annex the subject property with a zoning of General Business (G-B). The property is contiguous to the city limits to the east across I-985 and currently zoned Highway Business (H-B) within unincorporated Hall County. As well, the property is located within the Limestone Parkway Overlay Zone and the Hall County Gateway Corridor Overlay District. The purpose of the request is to access sewer for the development of a 6,070 square foot retail shopping center. The property consists of two tracts which includes GDOT surplus property which was sold to the applicant. One access driveway is proposed from Crescent Drive. The adjacent uses include single-family residential uses to the north and west, Hall County Farmers Market to the south across Jesse Jewell Parkway and mini-warehouses and an assisted living facility across I-985 to the east.

**History/Background:**

**Facts & Issues for Consideration:**

**Department Recommendation:**

Planning staff recommended approval with seven conditions. See the Staff Recommendation report for details.

**Department Director:**

Rusty Ligon

**If funding is involved, are funds approved within the current budget?**

N/A

**Amount Requested:**

**Source of Funds:**

**Finance Comments:**

**Administrative Comments:**

**ATTACHMENTS:**

| Description                                          | Type            |
|------------------------------------------------------|-----------------|
| <input type="checkbox"/> Staff Recommendation Report | Report          |
| <input type="checkbox"/> Location Maps               | Backup Material |
| <input type="checkbox"/> Narrative                   | Backup Material |
| <input type="checkbox"/> Survey Parcel 1             | Backup Material |
| <input type="checkbox"/> Survey Parcel 2             | Backup Material |
| <input type="checkbox"/> Concept Plan                | Backup Material |
| <input type="checkbox"/> Architectural Elevation     | Backup Material |
| <input type="checkbox"/> Floor Plan                  | Backup Material |



**GAINESVILLE PLANNING and APPEALS BOARD  
STAFF RECOMMENDATION**

**Applicant and Property Owner**..... Moez Hasni  
**Location**..... 374 and 400 Crescent Drive  
**Request**..... Annex with a zoning of General Business (G-B)  
**Total Acres** ..... 5.503<sup>±</sup> acres  
**Ward**..... Two  
**Proposed Use**..... Retail shopping center  
**Planning Division Staff Recommendation** ..... **Approval, with conditions**  
**Date**..... December 14, 2021

---

▪ **Applicant's Proposal and Background Information**

The applicant is proposing to annex the subject property with a zoning of General Business (G-B). The property is contiguous to the city limits to the east across I-985 and is currently zoned Highway Business (H-B) within unincorporated Hall County. As well, the property is located within the Limestone Parkway Overlay Zone and the Gateway Corridor Overlay Zone. The property consists of two tracts of land which includes surplus property from the Georgia Department of Transportation (GDOT) that was recently sold to the applicant.

The purpose of the request is to access sewer for the development of a 6,070 square foot retail shopping center that will include a Dunkin Donuts restaurant. One access driveway is proposed along Crescent Drive near the center of the property. The subject property previously contained a single-family home that was demolished and has since been graded for a stormwater easement and detention pond located on the north end of the property.

▪ **Adjacent Land Use and Zoning**

| Location | Use                                                                                       | Zoning                                                                                                                  |
|----------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| North    | Single-family homes                                                                       | Highway Business (H-B) -County<br>Residential-II (R-II) -County                                                         |
| South    | Hall County Farmers Market; Hall County Fire Station #7                                   | Highway Business (H-B) -County                                                                                          |
| East     | Exit 24/ I-985; Undeveloped land<br>Mini-warehouses; Assisted Living Facility; Apartments | Highway Business (H-B) -County<br>Agricultural Residential-IV (AR-IV) -County<br>Planned Unit Development (P-U-D) -City |
| West     | Vacant land; Single-family homes                                                          | Highway Business (H-B) -County<br>Agricultural Residential-IV (AR-IV) -County                                           |

Other uses within the surrounding area include the New Holland Market shopping center to the west, Gainesville Regional Youth Detention Center (Juvenile Justice Department), Hall County Emergency Services Complex and the New Horizons Lanier Park to the north.



▪ **Other Departmental Comments**

According to the Georgia Department of Transportation (GDOT), the developer will need to coordinate with GDOT since this development will impact the State Route System.

The Gainesville Public Works Department comments for this request are stated in proposed zoning condition # 7 of this staff report.

▪ **Zoning History**

*The following zoning actions have taken place in the immediate area during the last ten years:*

**2021** – A request by Jim Chapman Communities to rezone 36.7± acres located at 0 Beverly Road, NE from General Business (G-B) to Planned Unit Development (P-U-D) zoning for a 220-unit rental cottage community was withdrawn.

**2020** – A request by Frank Norton, Jr. to annex a 2.16± acres tract with a zoning of Planned Unit Development (P-U-D) located at 39, 44, 48 and 49 Quarry Street; 4 Highland Street and to amend a 14.43± acres tract with a zoning of Planned Unit Development (P-U-D) located at 0 Lakeview Drive NE; 52, 54 and 56 Quarry Street NE was conditionally approved for 49 residential cottage and townhomes.

**2020** – A request by Capstone Acquisitions, LLC to annex a 6.148± acres tract with a zoning of Light Industrial (L-I) located at 0 Jesse Jewell Parkway for a climate-controlled self-storage and office/warehouse was conditionally approved.

**2018** – A request by Limestone Greenway, LLC to annex a 75.12± acres tract with a zoning of Planned Unit Development (P-U-D) located at 0 and 2065 Limestone Parkway was conditionally approved for a mixed-use development.

**2017** – A request by Keel Property Management, LLC to annex a 6.32± acres tract with a zoning of General Business (G-B) located at 0 White Sulphur Road Drive was conditionally approved for restaurant, retail and a carwash.

**2017** – A request by the City of Gainesville to rezone 53.177± acres located at 1514, 1515, 1545, 1560 and 1581 Community Way from Residential-II (R-II) to Office and Institutional (O-I) zoning was approved for existing uses and for future professional office purposes.

**2016** – A request by Timothy Bullard to annex a 20.417± acres tract located at 1582 and 1586 Pine Valley Road was denied for a 240-unit apartment complex with Residential-II (R-II) zoning.

**2012** – A request by Pacolet Milliken Enterprises, Inc. to annex a 68.223± acres tract located at 601 White Sulphur Road was approved with conditional Planned Unit Development (P-U-D) zoning for a mixed-use development.

▪ **Staff Analysis**

**(1) Is the proposed use suitable in view of the zoning and development of adjacent and nearby property?**

The proposed use appears suitable given the surrounding uses and adjacent zoning. Nearby properties include a mixture of residential, institutional, office and commercial uses. The adjacent and nearby properties are zoned General Business (G-B) and Planned Unit Development (P-U-D) in the city and Highway Business (H-B) and Agricultural Residential-IV (AR-IV) in the county. The

subject property is located along a commercial corridor that has had significant growth within the past 5 to 7 years due to its proximity to Exit 24/I-985 and nearby medical facilities.

**(2) Will the proposed use adversely affect the existing use or usability of adjacent or nearby property?**

Given the property is undeveloped, the proposed use will increase traffic and turning movements on Crescent Drive. Crescent Drive is a two-lane county road with no curb/gutter or sidewalks. Coordination with the City of Gainesville, Hall County and Georgia Department of Transportation will be necessary to address the access requirements. Proposed improvements recommended by the Gainesville Public Works Department are as stated in zoning condition #7 of this staff report.

**(3) Is the proposed use compatible with the purpose and intent of the Comprehensive Plan?**

It is staff's opinion that the proposed retail building is supported by the Comprehensive Plan. The proposal is consistent with the Comprehensive Plan. The Future Development Map for the City of Gainesville places the subject property within the *Retail/Commercial* land use category which includes commercial service activities such as grocery stores, banks, restaurants, theatres, hotels, and automotive related businesses. Commercial uses may be located as a single use in one building or grouped together in a shopping center.

According to the Character Area map for the City of Gainesville, the subject property is located within the *Limestone Medical Corridor* Character Area. The Limestone Parkway corridor area is an employment corridor that is envisioned as one of the priority growth areas and is not anticipated to expand Gainesville's traditional neighborhood fabric. Land uses allowed within this area include public / institutional, low-density residential, medium-density residential, multi-family residential, mixed-use, commercial, and parks / recreation / conservation.

**(4) Are there substantial reasons why the property cannot or should not be used as currently zoned?**

The proposed zoning of General Business (G-B) is similar to the property's existing zoning of Highway Business (H-B). The applicant desires to utilize sewer services which requires the property to be annexed given it is adjacent to the city limits.

**(5) Will the proposed use cause an excessive or burdensome use of public facilities or services, including but not limited to streets, schools, water or sewer utilities, and police or fire protection?**

Nearby developments currently utilize City water and sewer services and there is sufficient capacity to serve the development.

The applicant will be required to coordinate with Gainesville, Hall County and GDOT regarding any access and driveway improvements. According to the "9<sup>th</sup> Edition Trip Generation Manual" as published by the Institute of Transportation Engineers, the estimated trips for a proposed retail center are 266± two-way trips per weekday and 41 A.M. / 30 P.M. two-way peak hour trips.

Existing public safety services respond to the adjacent and nearby properties. Gainesville Fire Station #2 off of Cleveland Highway is located approximately 2.5 miles away. As well, Hall County Fire Station #7 off of East Crescent Drive is located approximately 0.23 miles away.

Given the proposal is for non-residential purposes, there should be no impacts to the Gainesville City School System.

**(6) Is the proposed use supported by new or changing conditions not anticipated by the Comprehensive Plan or reflected in the existing zoning on the property or surrounding properties?**

As previously stated, the surrounding area has experienced significant residential, office and commercial growth along Jesse Jewell Parkway due to its proximity to Exit 24/I-985, Northeast Georgia Medical Center and downtown Gainesville.

The proposed retail development appears to be consistent with adjacent commercial development.

**(7) Does the proposed use reflect a reasonable balance between the promotion of the public health, safety, morality, or general welfare and the right to unrestricted use of property?**

Due to the subject property's proximity to existing residential, commercial and industrial land uses, the proposal, *with the recommended conditions of zoning* appears to promote a reasonable balance between the interests of the City, the property owner, and neighboring residents and property owners.

---

▪ **Staff Recommendation**

The Planning Division staff is recommending **conditional approval** of the proposed annexation request with **General Business (G-B) zoning**, based on the Comprehensive Plan and the adjacent residential and non-residential land uses.

**Conditions**

1. The proposed development shall be generally consistent depicted on the concept plan and architectural renderings provided with this application.
2. Prohibited uses for the subject property shall include adult novelty stores, group homes, crisis centers, adult entertainment centers, pawn shops, dollar-type stores, massage parlors, hookah lounge, tobacco or vaping stores, gas station/convenience stores, tire stores, auto parts stores, auto body shops, automobile sales establishments, marine sales or repair stores, automated or non-automated car washes, truck stops, coin-laundry facilities, tattoo parlors, psychics, fortune tellers, clairvoyants and the like.
3. The proposed buildings shall meet the Limestone Parkway Overlay Zone and Gateway Corridor Overlay Zone standards.
4. The frontage landscape areas shall be sodded with grass and contain minimum 3-inch caliper size hardwood trees subject to the Community & Economic Development Director approval.
5. The subject property shall be limited to one (1) multi-tenant sign not to exceed 15-feet in height, 80 square feet of sign face area, 120 square feet of total sign structure area with internal or external lighting. Building signage shall be permitted as regulated within the Gainesville Unified Land Development Code. An electronic message board sign or electronic changeable copy sign shall not be permitted for the subject property.
6. An updated as-built boundary survey/plat of the subject property, indicating all improvements required for the proposed use shall be required.

7. All access point design for the subject property shall be submitted for review by the Gainesville Public Works Director in coordination with Hall County and the Georgia Department of Transportation (GDOT). The approval of said design shall be required prior to issuance of a building permit. All required access / traffic / sidewalk improvements associated with the proposed development shall be at the full expense of the owner/developer.
- a) Crescent Drive shall be improved to City standards along both sides of the roadway for the length of the proposed site. This includes roadway, curb and gutter, sidewalk, etc.
  - b) Jesse Jewell Parkway frontage shall be improved to City standards along the front roadway side for the length of the proposed site. This includes curb and gutter, sidewalk, etc. There is currently an existing right turn lane at this location.
  - c) The proposed RCUT at Crescent Drive and Jesse Jewell Parkway to allow left turns onto Crescent Drive shall be reviewed by the Georgia Department of Transportation (GDOT). This will require coordination between the development and GDOT for permitting approval/denial. Any correspondence from the GDOT shall be forwarded to the Gainesville Public Works Department.
  - d) The westbound left turn lane on Jesse Jewell Parkway at Textile Way and the Jesse Jewell Parkway at East Crescent Drive intersection shall be reviewed by GDOT for improvements to accompany any U-Turn movements. This will require coordination between the development and GDOT for permitting approval/denial. Any correspondence from the GDOT shall be forwarded to the Gainesville Public Works Department.
  - e) Southern site access on Crescent Drive is proposed to be a full access side street STOP. With the increased development in the area and the projected peak hour/daily trips for the development, it is recommended that the driveway also include a right turn deceleration lane into the development with sufficient spacing for the deceleration lane from the intersection of Jesse Jewell Parkway at no cost to the City. The deceleration lane should be a full width storage of 100 feet with a 50-foot taper.
  - f) Northern site access on Crescent Drive is proposed to be a full access side street STOP. Should this access be built, site distance shall be evaluated to determine the type of access permitted and it shall meet all City of Gainesville requirements.



# GAINESVILLE

R-I-A

New Haven Church

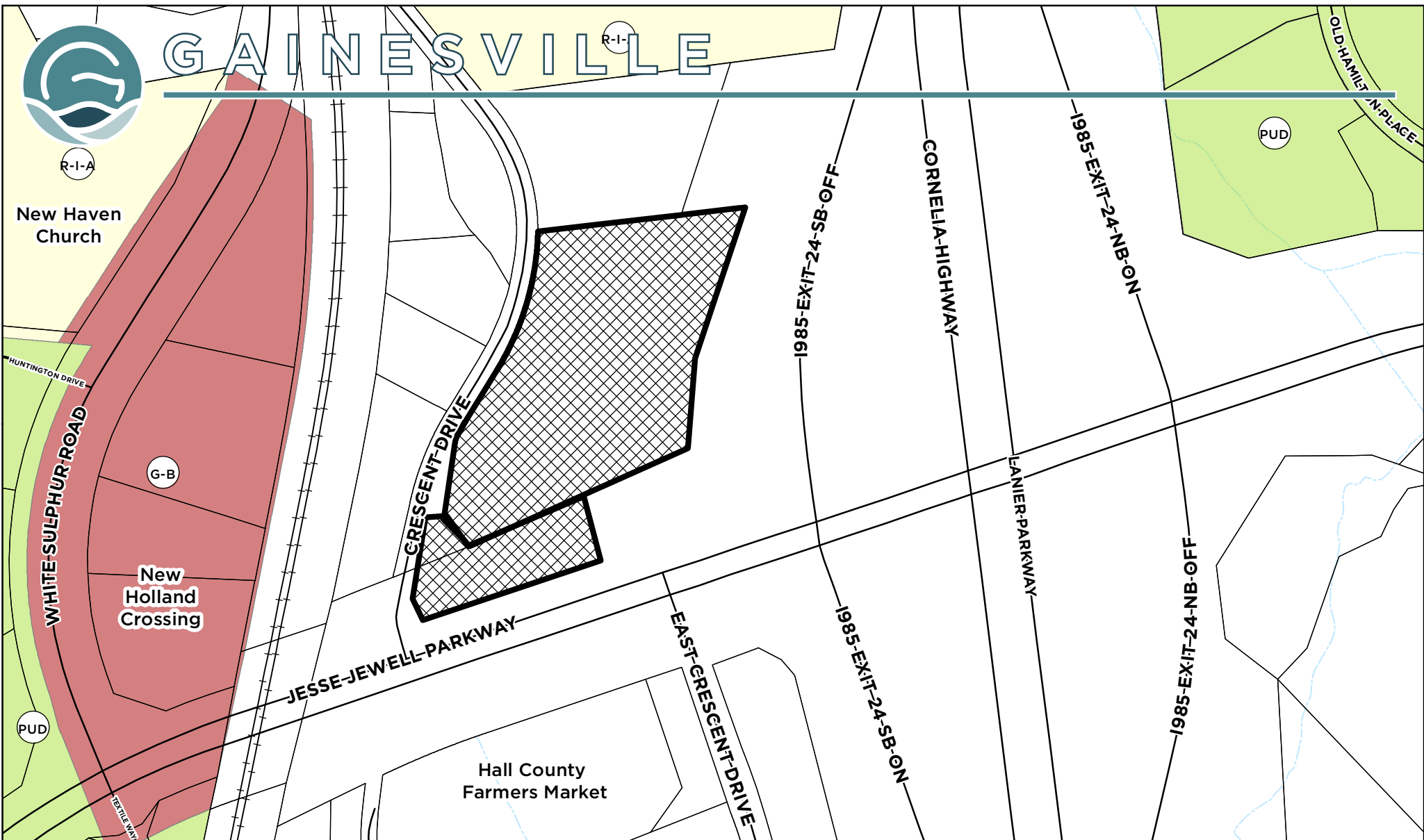
G-B

New Holland Crossing

PUD

PUD

OLD HAMLET IN PLACE



Applicant: **MOEZ HASNI**

## ANNEXATION REQUEST

Subject Property Address:  
374 & 400 Crescent Drive

Tax Parcel:  
15-033C-000-077

Request:

Annex 5.503+/- acres and establish zoning as General Business (G-B) for a retail shopping center



Subject Property



Meeting Date: 12/14/2021

Map Prepared: 11/03/2021

0 150 300 450 600 Feet

Page 929 of 1097 SCALE: 1" = 250'





# GAINESVILLE



Applicant: **MOEZ HASNI**

## ANNEXATION REQUEST

Subject Property Address:  
**374 & 400 Crescent Drive**

Tax Parcel:  
**15-033C-000-077**

Meeting Date: **12/14/2021**

Map Prepared: **11/03/2021**

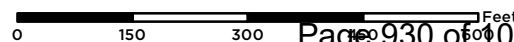
Request:

**Annex 5.503+/- acres and establish zoning as General Business (G-B) for a retail shopping center**

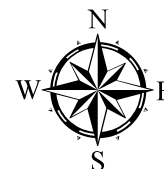


**Subject Property**

**Aerial from 2021**



Page 930 of 1097 **SCALE: 1" = 250'**





The property located at 400 crescent drive, Gainesville GA 30501  
Currently it is an undeveloped land right of Exit 24, Part of Hall County and commonly known as Simpson land. We are requesting to be annexed into City of Gainesville as the utilities will be provided by the city. The property is a total of 5.5 acres, and we are proposing a 6070sf shopping center facing Jesse Jewell pkwy.

We have a commitment from A national QSR (Dunkin Donuts) to occupy the first unit. Rest of the tenants are still TBD, but we are confident we will get additional national tenants once we start the construction.

We hope this project will add value to the city gateway exit and will be constructed with all the gateway and city requirements.

Thank you

Moez Hasni

THIS BLOCK RESERVED FOR THE  
CLERK OF THE SUPERIOR COURT.

GRID- GA WEST

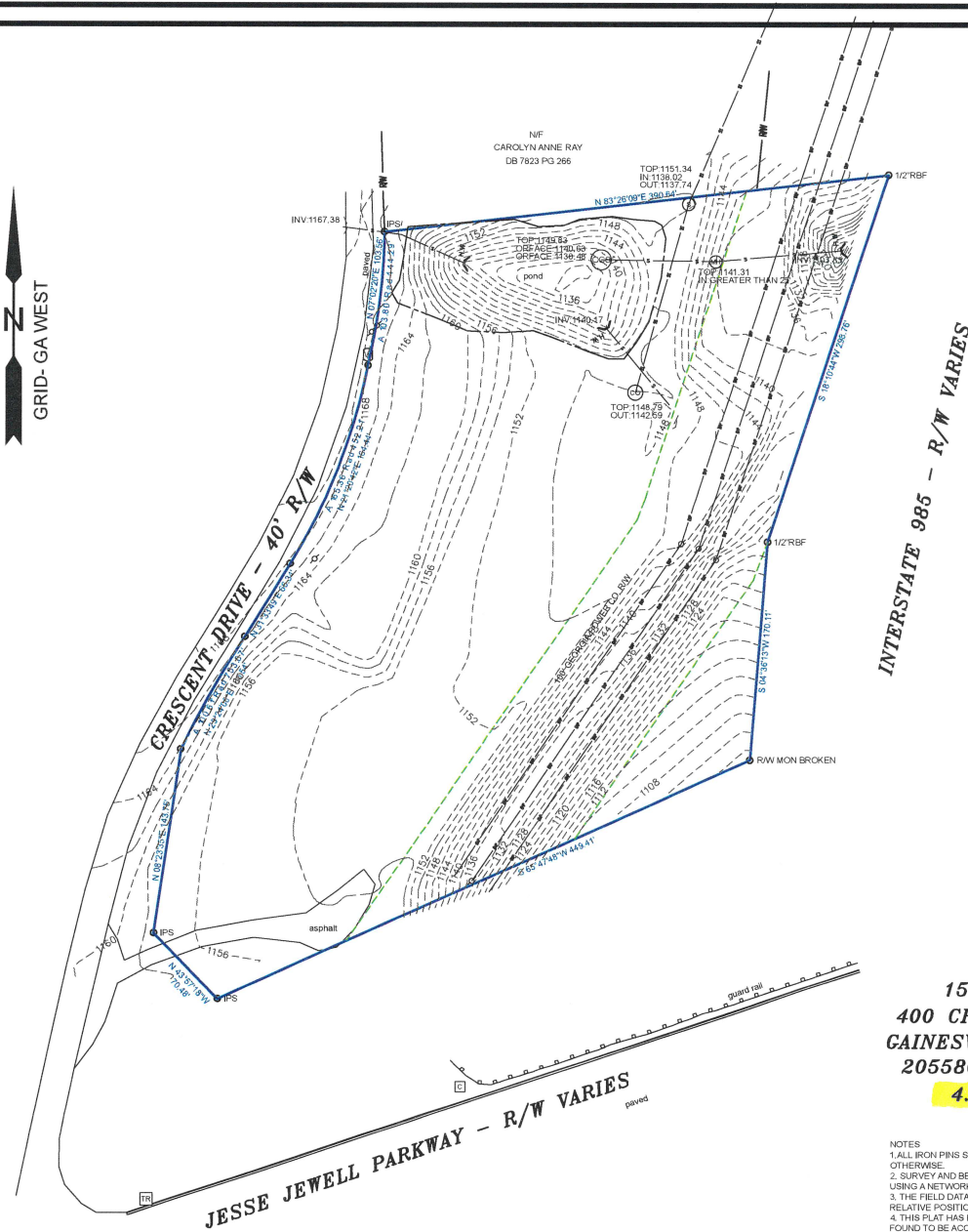
#### SURVEYORS CERTIFICATION:

This plat is a retracement of an existing parcel or parcels of land and does not subdivide or create a new parcel or make any changes to any real property boundaries. The recording information of the documents, maps, plats, or other instruments which created the parcel or parcels are stated herein. RECORDATION OF THIS PLAT DOES NOT IMPLY APPROVAL OF ANY LOCAL JURISDICTION, AVAILABILITY OF PERMITS, COMPLIANCE WITH LOCAL REGULATIONS OR REQUIREMENTS, OR SUITABILITY FOR ANY USE OR PURPOSE OF THE LAND. Furthermore, the undersigned land surveyor certifies that this plat complies with the minimum technical standards for property surveys in Georgia as set forth in the rules and regulations of the Georgia Board of Registration for Professional Engineers and Land Surveyors and as set forth in O.C.G.A. Section 15-6-67.



| SURVEY FOR: |               | MOE HASNI |                 |
|-------------|---------------|-----------|-----------------|
| G.M.D.:     | DATE          | 411       | 9/6/2019        |
| DISTRICT:   | SCALE         |           | 1"=60'          |
| SECTION:    | JOB NO.       |           | 2019-233        |
| COUNTY:     | DRAWING NAME: |           | 400 CRESCENT DR |
| HALL        |               |           |                 |

**GARMON**  
LAND SURVEYING  
1920 Railroad Street Stadium Ga 30666  
678-726-7582  
garmonsurveying@gmail.com



#### LEGEND

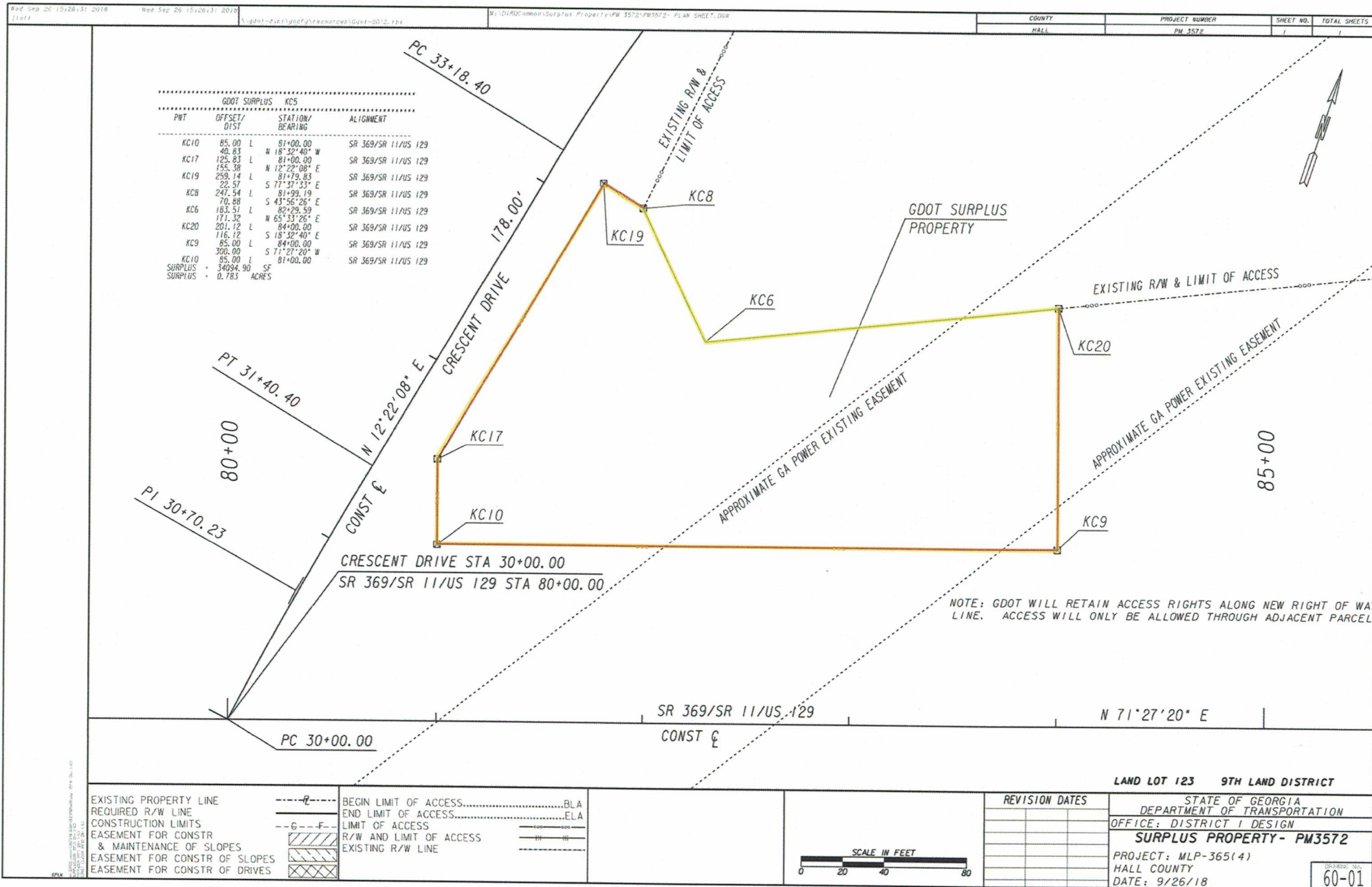
IPS=IRON PIN SET  
RBF=REBAR FOUND  
BL=BUILDING LINE  
N/T=NOW OR FORMERLY  
P/L=PROPERTY LINE  
D/W=DRIVEWAY  
-X=FENCE  
R/W=RIGHT-OF-WAY  
CON=CONCRETE  
SW=SIDEWALK  
W=POWER POLE  
WM=WATER METER  
S=SEWER  
CC=CLEAN OUT

15033C000077  
400 CRESCENT DRIVE  
GAINESVILLE, GA 30507  
205586.92 Sq. Feet  
**4.72 Acres**

NOTES  
1. ALL IRON PINS SET ARE 1/2" REBAR UNLESS STATED OTHERWISE.  
2. SURVEY AND BEARING BASIS ESTABLISHED WITH GPS USING A NETWORK ADJUSTED REAL TIME KINEMATIC ROVER.  
3. THE FIELD DATA UPON WHICH THIS PLAT IS BASED HAS RELATIVE POSITIONAL ACCURACY OF +/-0.03 FEET.  
4. THIS PLAT HAS BEEN CALCULATED FOR CLOSURE AND IS FOUND TO BE ACCURATE WITHIN ONE FOOT IN 82,418 FEET.  
5. EQUIPMENT USED IN THIS SURVEY WAS A CARLSON SURVEYOR + DATA COLLECTOR AND A TOPCON 3005W TOTAL STATION.  
6. FIELD WORK COMPLETED ON AUGUST 29, 2019.

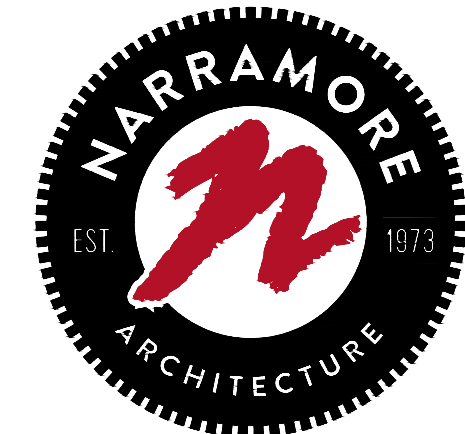


# EXHIBIT "B"









American Institute of Architects

310 MILLS AVE. GREENVILLE, SC 29605  
864.242.9881  
plans@narramore.net

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SEAL

## EXTERIOR FINISH SCHEDULE

### BRICK SCHEME

BRICK BASED ON : BORAL BRICK  
BRK-1 : TBD

### MORTAR SCHEME:

TBD

### STUCCO (PAINTED):

SP-1 : TBD  
SP-2 : TBD

### EXTERIOR WALL CLADDING:

WC-1 : NICHHA - TBD

### METAL COPING / CANOPY:

PRE-FINISHED COPING/FACIA

MTL-1 : PRE-FINISHED COPING/FACIA, COLOR TBD

MTL-2 : PREMANUFACTURED METAL CANOPY "MATTE BLACK"

### AWNING:

AWNING FABRICS ARE BASED ON SUBBRELLA "FIRE RESIST"

AWNING-1 : "BLACK"

### STOREFRONT SYSTEM:

ALL GLASS SHALL BE 1" CLEAR, LOW-E INSULATED  
WITH ANODIZED ALUMINUM FRAMES

### BOLLARD:

BLRD : PAINT W/ 1 COAT PRIMER AND 2 COATS  
INDUST ENAMEL, SAFETY YELLOW COLOR

### LIGHTING:

E-1: WALL PACK, MOUNTED AT 12'-0" A.F.F.;

COLOR: ANODIZED ALUMINUM

E-2: WALL SCONCE, MOUNTED AT 6'-3" A.F.F.;

COLOR: ANODIZED ALUMINUM

### NOTES:

- ALL ELECTRICAL EQUIPMENT, DOORS, AND DOWNSPOUTS ARE TO BE PAINTED TO MATCH ADJACENT WALLS.
- GALVANIZED METAL PAINTING PREPARATION: CLEAN ALL GALVANIZED SURFACES WITH A WATER-BASED ALKALINE CLEANSER TO REMOVE ANY OIL OR PASSIVATOR AND APPLY 1 COAT GALVITE HS PRIMER PRIOR TO APPLYING 2 COATS OF FINISH PAINT, TYPICAL OF ALL EXTERIOR GALVANIZED METAL SURFACES, INCLUDING ELECTRICAL EQUIPMENT.

### GENERAL NOTES:

- STOREFRONT NOTES:
  - ALL CLEAR GLAZING IS 1" CLEAR, LOW "E". ALL GLAZING NEEDS TO BE LISTED TO MEET LOCAL WIND LEVELS AND CORRESPONDING DP RATINGS.
  - ALL FRAMES EQUAL TO KAWNEER 451T SERIES STOREFRONT SYSTEM.
  - "T" DENOTES TEMPERED GLAZING WHERE REQUIRED BY CODE.
  - COLOR : ANODIZED ALUMINUM.
  - SEE SHEET A6.0 FOR STOREFRONT ELEVATIONS.
  - SEE SHEET A6.1 FOR EXTERIOR FLASHING DETAILS.
- PROVIDE F.R. PLYWOOD SHEATHING AT SIGNAGE AREA FOR EACH UNIT, BOTTOM OF PLYWOOD TO BE 1'-0" BELOW ROOF DECK. SEE EXTERIOR ELEVATIONS AND WALL SECTIONS.
- CONTROL JOINTS TO BE PROVIDED AT CMU, BRICK, STUCCO, AND EIFS.
- ALL EXPOSED LINTELS ARE TO BE PAINTED TO MATCH ADJACENT WALLS.

CRESCENT DRIVE  
RETAIL, LLC

2118 DEODORS FERRY RD NW  
GAINESVILLE, GA 30618

RETAIL SHOPS  
400 CRESCENT DRIVE  
GAINESVILLE, GA 30501

## REVISIONS

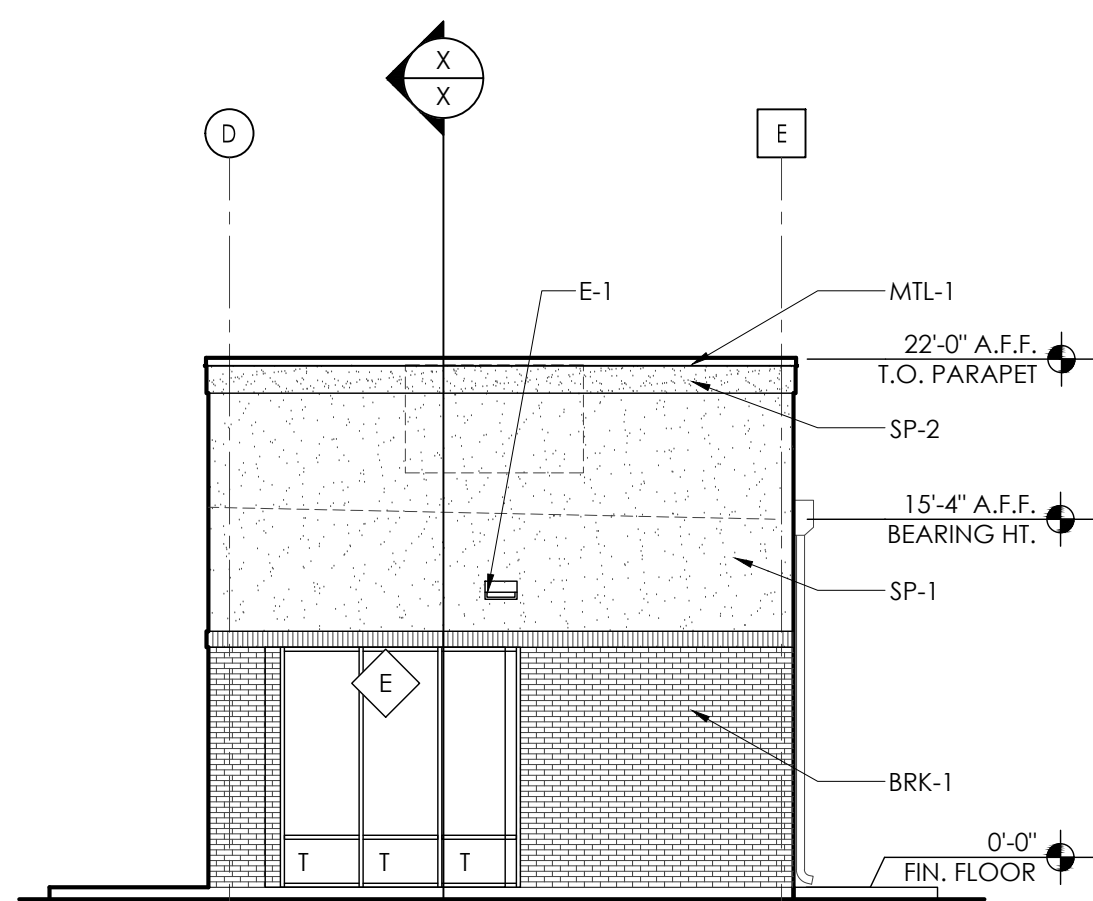
PROJECT DATA  
NEW CONSTRUCTION  
PROJECT NUMBER  
21969

ISSUE DATE  
XX-XX-21

RETAIL SHOPS  
GAINESVILLE, GA

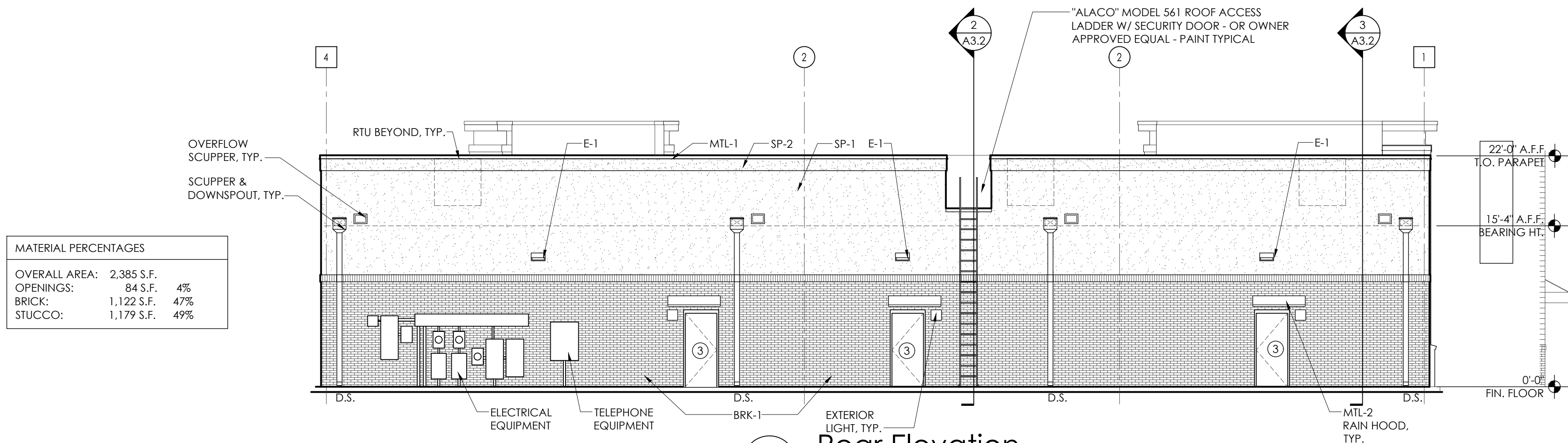
A2.0

DESCRIPTION  
DRAWING NAME



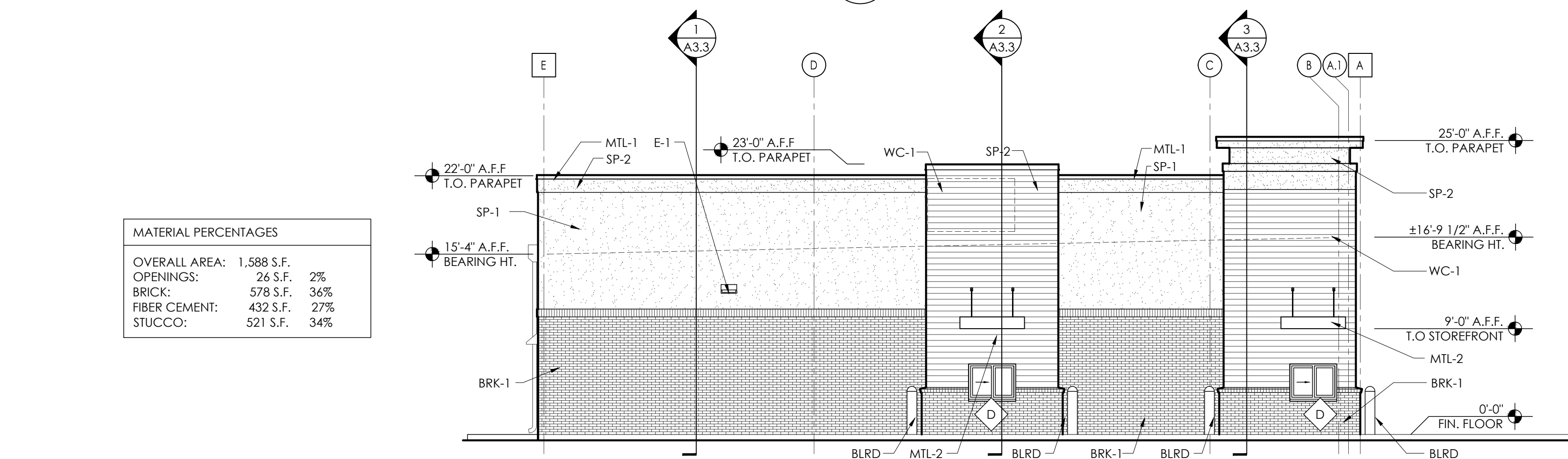
## Side Elevation

SCALE: 1/8" = 1'-0"



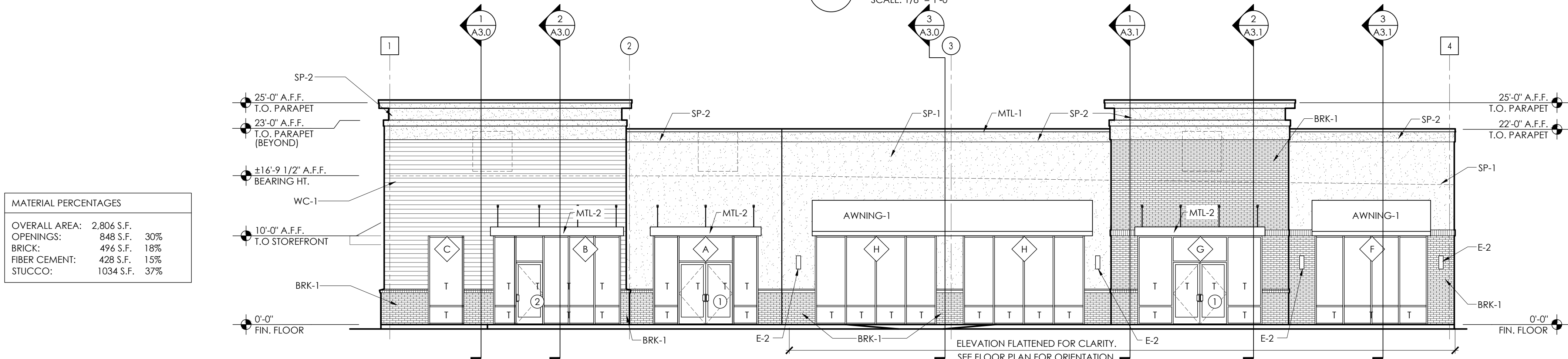
## Rear Elevation

SCALE: 1/8" = 1'-0"



## Side Elevation

SCALE: 1/8" = 1'-0"



## Front Elevation

SCALE: 1/8" = 1'-0"

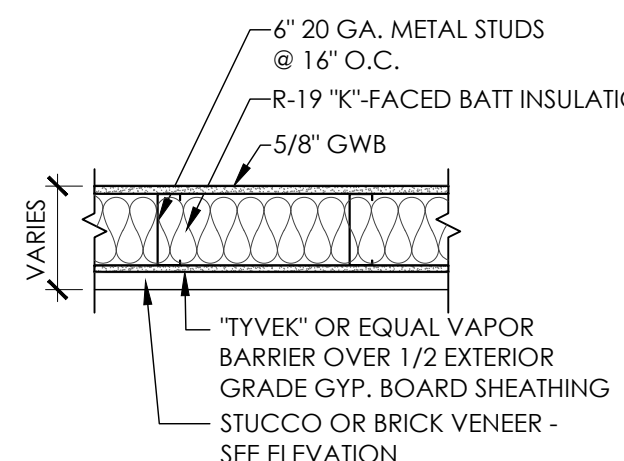
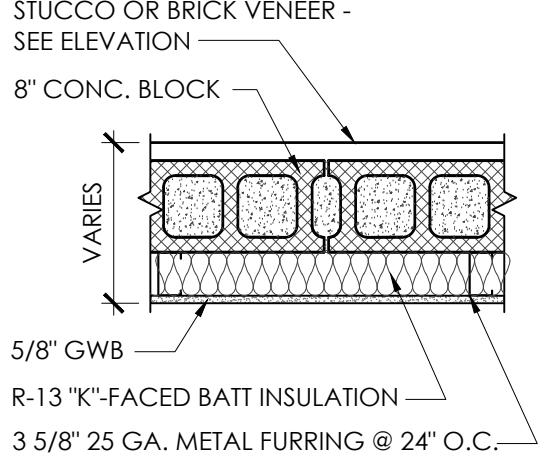
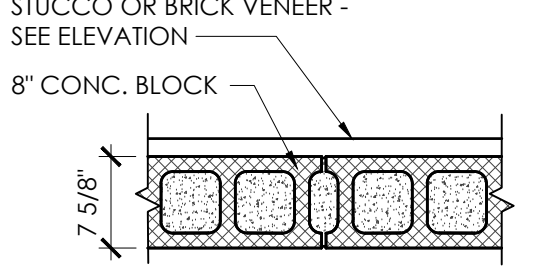
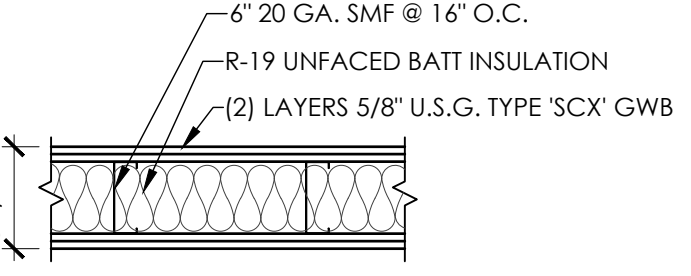
| MATERIAL PERCENTAGES |          |     |  |
|----------------------|----------|-----|--|
| OVERALL AREA:        | 550 S.F. |     |  |
| OPENINGS:            | 100 S.F. | 19% |  |
| BRICK:               | 167 S.F. | 31% |  |
| STUCCO:              | 283 S.F. | 50% |  |

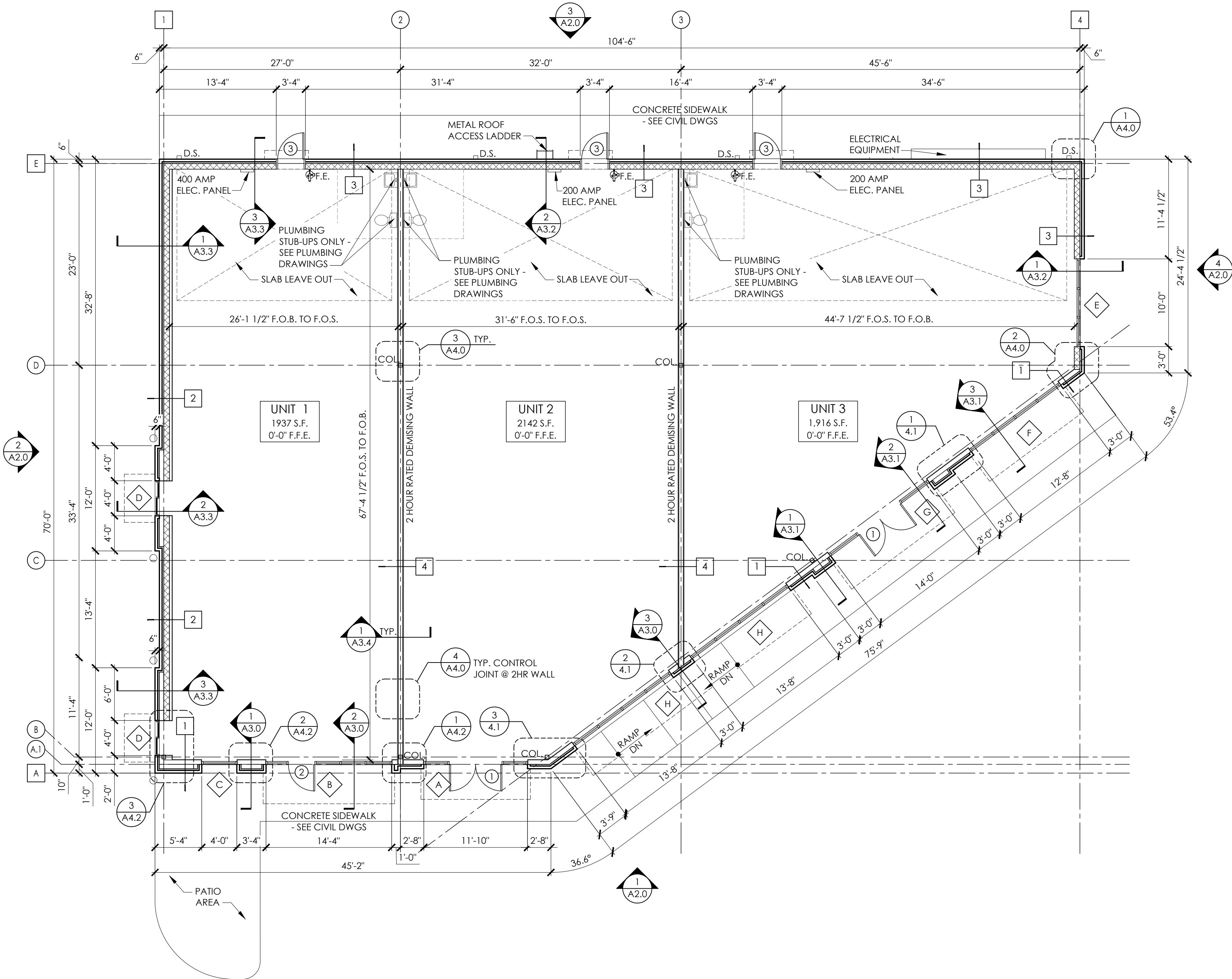
| MATERIAL PERCENTAGES |            |     |  |
|----------------------|------------|-----|--|
| OVERALL AREA:        | 2,385 S.F. |     |  |
| OPENINGS:            | 84 S.F.    | 4%  |  |
| BRICK:               | 1,122 S.F. | 47% |  |
| STUCCO:              | 1,179 S.F. | 49% |  |

| MATERIAL PERCENTAGES |            |     |  |
|----------------------|------------|-----|--|
| OVERALL AREA:        | 1,588 S.F. |     |  |
| OPENINGS:            | 26 S.F.    | 2%  |  |
| BRICK:               | 578 S.F.   | 36% |  |
| FIBER CEMENT:        | 432 S.F.   | 27% |  |
| STUCCO:              | 521 S.F.   | 34% |  |

| MATERIAL PERCENTAGES |            |     |  |
|----------------------|------------|-----|--|
| OVERALL AREA:        | 2,804 S.F. |     |  |
| OPENINGS:            | 848 S.F.   | 30% |  |
| BRICK:               | 496 S.F.   | 18% |  |
| FIBER CEMENT:        | 428 S.F.   | 15% |  |
| STUCCO:              | 1034 S.F.  | 37% |  |



| WALL TYPE LEGEND                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                         |                                                                                    |   |                                                                                                                                                                                                                                                                                                         |                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <p><u>EXTERIOR 6" WALL</u></p> <p>6" GA. METAL STUDS @ 16" O.C. (MAX.) WITH R-19 K-FACED BATT INSULATION &amp; 5/8" GYPSUM WALLBOARD TO ROOF DECK ON INTERIOR FACE. WEATHER RESISTIVE BARRIER OVER 1/2" EXTERIOR GRADE GYPSUM WALLBOARD SHEATHING CONT. @ EXTERIOR FACE WITH STUCCO OR BRICK VENEER. SEE NOTE 1, 6.</p> |  | 2 | <p><u>EXTERIOR MASONRY WALL</u></p> <p>8" C.M.U. WALL WITH HORIZONTAL JOINT REINFORCING @ 16" O.C. AND WITH VERTICAL REINFORCING AS DESCRIBED ON STRUCTURAL DRAWINGS. FILL VOIDED CELLS W/ FOAM INSULATION TO DECK. EXTERIOR FACE WITH STUCCO OR BRICK VENEER. SEE NOTE 1. SEE NOTES 1, 4, &amp; 5.</p> |  |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <p><u>EXTERIOR MASONRY WALL</u></p> <p>8" C.M.U. WALL WITH HORIZONTAL JOINT REINFORCING @ 16" O.C. AND WITH VERTICAL REINFORCING AS DESCRIBED ON STRUCTURAL DRAWINGS. FILL VOIDED CELLS W/ FOAM INSULATION TO DECK PER UL SYSTEM U905. SEE NOTES 1, 4, &amp; 5.</p>                                                     |  | 4 | <p><u>INTERIOR DEMISING WALL (2 HOUR)</u></p> <p>2 HOUR FIRE RATED ASSEMBLY (UL DESIGN U419) W/ (2) LAYERS 5/8" U.S.G. TYPE 'SCX' GWB (OR EQUAL) EA. SIDE OF 20 GA. 6" SMF @ 16" O.C. SEE NOTES 1, 2, 3, &amp; 4.</p>                                                                                   |  |
| <p><u>NOTES:</u></p> <p>1. INTERIOR GYPSUM WALLBOARD TO BE FINISHED &amp; READY FOR PAINT - SEE SPECIFICATION.</p> <p>2. PROVIDE ADDITIONAL FRAMING AS REQUIRED BY CODE AND AS NECESSARY TO SUPPORT TOILET ROOM AND/OR HANDICAPPED ACCESSORIES. PROVIDE M.R. GYPSUM WALL BOARD IN ALL RESTROOMS. PROVIDE SOUND ATTENUATION BATT INSULATION AT ALL RESTROOM WALLS.</p> <p>3. SEAL PENETRATION W/MIN. 1/4" SEALANT OVER MINERAL WOOL-FORM; ULSYSTEM NO. C-AJ-1364.</p> <p>4. SEAL WALL TO STRUCTURE ABOVE W/MIN. 1/4" SEALANT OVER MINERAL WOOL-FORM; UL SYSTEM NO. HW-D-0174.</p> <p>5. SEE SHEET A.1.1 FOR LOCATION OF INTERIOR WALLS THAT EXTEND TO DECK/BOTTOM OF STRUCTURE. ALL OTHER INTERIOR WALLS SHOULD STOP 6" ABOVE THE CEILING.</p> <p>6. SEE STRUCTURAL DWGS FOR METAL STUD SPECS USED ON EXTERIOR WALLS.</p> |                                                                                                                                                                                                                                                                                                                         |                                                                                    |   |                                                                                                                                                                                                                                                                                                         |                                                                                     |



1 Floor Plan  
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

- FOR ALL RATED CONSTRUCTION AND RATED PENETRATIONS, SEE SHEET G.1.1 AND A6.0.
- FOR ALL DOOR HARDWARE SCHEDULES, DOOR SCHEDULES AND WALL TYPES, REFER TO SHEET A6.0.
- (EXPOSED PIPES AND SURFACES) HOT WATER AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL NOT BE SHARP OR ABRASIVE SURFACES UNDER LAVATORIES.
- "F.E." DENOTES TYPE 2-A FIRE EXTINGUISHERS (3,000 S.F. PROTECTION AREA) EXCEPT AS NOTED OTHERWISE. ALL EXTINGUISHERS ARE TO BE SUPPLIED BY TENANT AT TIME OF UPFIT.
- REFER TO CIVIL ENGINEERING DRAWINGS FOR HC ACCESSIBLE PARKING SPACES AND CURB CUT LOCATIONS.
- REFER TO EXTERIOR ELEVATIONS FOR LOCATION OF ALL SAFETY GLAZING.
- PROVIDE 1/2" FIBER EXPANSION JOINTS FULL WIDTH OF SIDEWALK AT COLUMN LINES.
- MAXIMUM SLOPE OF SIDEWALKS TO BE 1:20. MAXIMUM CROSS-SLOPE IS 1:50.
- ALL FIRE WALLS AND FIRE RATED PARTITIONS SHALL BE IDENTIFIED WITH SIGNAGE AS TO FIRE RATING AND PROTECTION OF OPENINGS. STENCIL IN CONCEALED SPACES THE FOLLOWING: "( ) HOUR FIRE AND SMOKE BARRIER - PROTECT ALL OPENINGS." IDENTIFICATION SHALL BE SPACED NO MORE THAN 12'-0" O.C. WITH A MINIMUM LETTER SIZE OF 2" IN HEIGHT ON A CONTRASTING BACKGROUND.
- CONCRETE FLOOR W/ SMOOTH TROWEL FINISH; BROOM CLEAN.
- UTILITIES TO BE STUBBED UP TO FUTURE RESTROOM LOCATIONS. G.C. TO VERIFY EXACT LOCATIONS WITH TENANT UPFIT PLANS.

- GENERAL NOTES:
- STOREFRONT NOTES:
    - ALL CLEAR GLAZING IS 1" CLEAR, LOW "E". ALL GLAZING NEEDS TO BE LISTED TO MEET LOCAL WIND LEVELS AND CORRESPONDING DP RATINGS.
    - ALL FRAMES EQUAL TO KAWNEER 451T SERIES STOREFRONT SYSTEM.
    - "T" DENOTES TEMPERED GLAZING WHERE REQUIRED BY CODE.
    - COLOR : ANODIZED ALUMINUM
    - SEE SHEET A6.0 FOR STOREFRONT ELEVATIONS.
    - SEE SHEET A6.1 FOR EXTERIOR FLASHING DETAILS.
  - PROVIDE F.R. PLYWOOD SHEATHING AT SIGNAGE AREA FOR EACH UNIT. SEE EXTERIOR ELEVATIONS AND WALL SECTIONS.
  - CONTROL JOINTS TO BE PROVIDED AT CMU, BRICK, AND EIFS.
  - ALL EXPOSED LINTELS ARE TO BE PAINTED TO MATCH ADJACENT WALLS.

NARRAMORE

EST 1973

ARCHITECTURE

American Institute of Architects

310 MILLS AVE. GREENVILLE, SC 29605  
864.242.9881  
plans@narramore.net

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SEAL

CRESCENT DRIVE RETAIL, LLC

2116 DEFOORS FERRY RD NW  
GAINESVILLE, GA 30518

RETAIL SHOPS

400 CRESCENT DRIVE  
GAINESVILLE, GA 30501

REVISIONS

PROJECT DATA  
NEW CONSTRUCTION  
PROJECT NUMBER  
21969  
ISSUE DATE  
XX-XX-21

RETAIL SHOPS  
GAINESVILLE, GA

A1.0  
FLOOR  
PLAN



**Date Submitted:** 11/29/2021

**Presenter:** Matt Tate

**Item of Business:** Request from **Fred and Olivia Skey** to rezone a 0.65± acre tract located on the east side of Northside Drive, southeast of its intersection with Ivey Terrace (a/k/a **352 Northside Drive, NW**) from Office and Institutional (O-I) and General Business (G-B) to Office and Institutional (O-I) with a special use.  
 Ward Number: Four  
 Tax Parcel Number(s): 01-025-005-010  
 Request: Single-family residence

**Meeting Date:** 12/14/2021

**Purpose of Request:**

The applicant is proposing to rezone the property with a special use for a single-family residence. The property is vacant of structures but was originally developed for a single-family home many years ago. The preliminary design of the home is for a single-story over a basement, 2,500 square foot home to include an attached in-law suite and a detached garage. The proposed architecture of the home will resemble a cottage/bungalow/craftsman style home similar to the original home that burned down around 1970. Adjacent uses include residential condominiums, quadplex, single-family home, AHAVA Hair Salon and professional offices.

**History/Background:**

**Facts & Issues for Consideration:**

**Department Recommendation:**

Planning staff recommended approval with one condition. See the Staff Recommendation report for details.

**Department Director:**

Rusty Ligon

**If funding is involved, are funds approved within the current budget?**

N/A

**Amount Requested:**

**Source of Funds:**

**Finance Comments:**

**Administrative Comments:**

**ATTACHMENTS:**

| Description                                          | Type            |
|------------------------------------------------------|-----------------|
| <input type="checkbox"/> Staff Recommendation Report | Report          |
| <input type="checkbox"/> Location Maps               | Backup Material |
| <input type="checkbox"/> Narrative                   | Backup Material |
| <input type="checkbox"/> Survey                      | Backup Material |
| <input type="checkbox"/> Site Plan                   | Backup Material |
| <input type="checkbox"/> Photos                      | Backup Material |

**GAINESVILLE PLANNING and APPEALS BOARD  
STAFF RECOMMENDATION**

**Applicant and Property Owner**..... Fred and Olivia Skey  
**Location**..... 352 Northside Drive, NW  
**Request**..... Rezone from O-I and G-B to O-I with a  
Special Use  
**Ward**..... Four  
**Proposed Use**..... Single-family home  
**Planning Division Staff Recommendation** ..... **Approval, with condition**  
**Date**..... December 14, 2021

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▪ **Applicant's Proposal and Background Information**

The applicant is proposing to rezone the property with a special use for a single-family residence. The home will be occupied by the applicant. The property is vacant of structures but was originally developed for a single-family home many years ago. The preliminary design of the home is for a single-story over a basement, 2,500 square foot home to include an attached in-law suite and a detached garage. The proposed architecture of the home is intended to resemble a cottage/bungalow/craftsman style home similar to the original home that burned down around 1970. One driveway for access is proposed off of Northside Drive.

▪ **Adjacent Land Use and Zoning**

| Location | Use                                                           | Zoning                                                   |
|----------|---------------------------------------------------------------|----------------------------------------------------------|
| North    | Office building, Chiropractor,<br>Vacant Residential Quadplex | Office and Institutional (O-I)                           |
| South    | AHAVA Hair Salon,<br>Professional Offices                     | General Business (G-B)                                   |
| East     | Residential Condominiums;<br>Professional Offices             | Office and Institutional (O-I)<br>Central Business (C-B) |
| West     | Rock Creek Greenway, Office<br>Residential Triplex            | Office and Institutional (O-I)<br>General Business (G-B) |

▪ **Other Departmental Comments**

There were no other departmental comments for this request.

▪ **Zoning History**

*The following zoning actions have taken place in the immediate area during the last ten years:*

**2021** - A request by Dave Odom to rezone a 0.50± acre tract located at 341 and 361 Oak Street, NW, from General Business (G-B) to Planned Unit Development (P-U-D) was conditionally approved for mixed-use residential and commercial.

**2020** – A request by Juan Luna for a special use within Neighborhood Business (N-B) zoning on a 1.66± acres tract located at 0, 903, 915, 919, 921, 925 and 927 Washington Street, NW was conditionally approved for twenty apartments.

**2018** – A request by KRM 2016, LLC for a special use within Neighborhood Business (N-B) zoning on a 0.82± acre tract located at 520 Washington Street, NW was conditionally approved for five duplex apartments.

▪ **Staff Analysis**

**(1) Is the proposed use suitable in view of the zoning and development of adjacent and nearby property?**

The adjacent properties consist of a mixture of residential and nonresidential uses and are zoned Office and Institutional (O-I), General Business (G-B) and Central Business (C-B). The subject property has historically been occupied for single-family residential purposes which is consistent with the proposal.

**(2) Will the proposed use adversely affect the existing use or usability of adjacent or nearby property?**

The proposed single-family home will restore the subject property to its original use. Given the small scale of the proposal, there should be no adverse effects to the adjacent or nearby properties.

**(3) Is the proposed use compatible with the purpose and intent of the Comprehensive Plan?**

The Gainesville Future Development Map for the City of Gainesville places the property within the *Mixed-Use Downtown* land use category. Land uses allowed in the *Mixed-Use Downtown* category include mixed-use, retail, office and residential.

According to the Character Area map for the City of Gainesville, the subject property is located within the *Central Core* Character Area. The vision for this area is to continue to evolve as the symbolic heart of the city and should strive for a more sustainable mixture of uses. Recent and ongoing public improvements Downtown have begun a long-term transition to more diverse land uses and redevelopment opportunities. Land uses supported in this Character Area include mixed-use, medium-density residential, multi-family residential, commercial, parks / recreation / conservation.

**(4) Are there substantial reasons why the property cannot or should not be used as currently zoned?**

The property currently has a split zoning of Office and Institutional (O-I) and General Business (G-B). The intent is to rezone the entire property to O-I with a special use to allow for a single-family home. Presently, the property could be developed for office and partly commercial. A zoning of O-I would allow the proposed home to be converted to professional office space if so desired in the future.

**(5) Will the proposed use cause an excessive or burdensome use of public facilities or services, including but not limited to streets, schools, water or sewer utilities, and police or fire protection?**

City water, sewer and public safety services are currently provided to the property. Gainesville Fire Station #1 off of Queen City Parkway is located approximately 1.2± miles from the subject property.

The applicants do not have school age children. Any future impact to the school system would be minimal given that only one home is proposed.

The proposal will slightly increase ingress and egress traffic movements along Northside Drive but will be insignificant.

**(6) Is the proposed use supported by new or changing conditions not anticipated by the Comprehensive Plan or reflected in the existing zoning on the property or surrounding properties?**

The Comprehensive Plan identifies the need for quality housing within the downtown area. New attached housing in the form of condominiums and townhomes have been or are in the process of being redeveloped along nearby Bradford Street, Oak Street and Forrest Avenue. It is anticipated that nearby residential properties located west of downtown will continue to be desirable for improvement given they are situated within an area that is walkable to downtown office, retail, restaurant and public uses.

**(7) Does the proposed use reflect a reasonable balance between the promotion of the public health, safety, morality, or general welfare and the right to unrestricted use of property?**

Based on the Comprehensive Plan and the adjacent residential uses, the proposal appears to reflect a reasonable balance between the promotion of the public health, safety, morality, or general welfare and the right to unrestricted use of property.

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**Additional Criteria**

**(1) The type of street providing access to the subject property is adequate to serve the proposed Special Use.**

Northside Drive is a local road maintained by the City of Gainesville. Access and capacity are sufficient for the proposed single family home.

**(2) Access into and out of the property adequately provides for traffic and pedestrian safety, the anticipated volume of traffic flow, and access by emergency vehicles.**

Access is sufficient given the property's proximity to downtown which is conducive for pedestrian connectivity. The subject property is located west of downtown and is walkable to the nearby Ivey Terrace Park, Rock Creek Park, Veterans Park, Highlands to Islands trail network, public library, shopping and restaurants.

**(3) Public facilities such as schools, water or sewer utilities, and police or fire protection are adequate to serve the Special Use.**

Existing public facilities are adequate to serve the proposed use.

**(4) Refuse, service, parking and loading areas on the property are located and screened to protect other properties in the area from such adverse effects as noise, light, glare or odor.**

The proposed residential use will function similar to other single-family homes within the city limits. There should be no issue with noise, light, glare or odor. Solid waste services will be provided by the City.

**(5) The hours and manner of operation of the Special Use have no adverse effects on other properties in the area.**

The property will be occupied as a single-family residence and will operate as such. No adverse effects are anticipated.

**(6) The height, size and location of the buildings or other structures proposed on the property are compatible with the height, size or location of buildings or other structures on neighboring properties.**

The height and size of the proposed residential home, attached in-law suite and garage appear to be in scale and in character with the surrounding area.

▪ **Staff Recommendation**

The Planning Division staff is recommending **conditional approval** of this request based on the Comprehensive Plan and the adjacent residential uses.

**Condition**

- 1. The proposed single-family home shall be generally consistent with the standards depicted on the concept plan and architectural picture provided with this application.**



# GAINESVILLE

Patton Land  
Surveying

Vivre Interiors

IVEY TERRACE

O-I

NORTHSIDE DRIVE

BRADFORD STREET

SYLVAN WOOD LANE

C-B

G-B

Applicant: **FRED & OLIVIA SKEY**

## REZONING REQUEST

Subject Property Address:  
**352 Northside Drive, NW**

Tax Parcel:  
**01-025-005-010**

### Request:

Rezone 0.65+/- acre tract from Office & Institutional (O-I) and General Business (G-B) to Office & Institutional (O-I) with special use for a single-family residence.



Subject Property



Meeting Date: **12/14/2021**

Map Prepared: **11/10/2021**

0 30 60 Feet

Page 942 of 1097

SCALE: 1" = 60'





# GAINESVILLE

Patton Land  
Surveying

Vivre Interiors

IVEY TERRACE

NORTHSIDE DRIVE

BRADFORD STREET

SYLVAN WOOD LANE

Applicant: **FRED & OLIVIA SKEY**

## REZONING REQUEST

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Tax Parcel:  
**01-025-005-010**

### Request:

Rezone 0.65+/- acre tract from Office & Institutional (O-I) and General Business (G-B) to Office & Institutional (O-I) with special use for a single-family residence.



Subject Property

AERIAL FROM 2021



Meeting Date: **12/14/2021**

Map Prepared: **11/10/2021**

0 30 60 Feet

Page 943 of 1097

SCALE: 1" = 60'

352 NORTHSIDE DRIVE

Gainesville GA 30501

Application for Rezoning to O/I with Special Use Permit to  
build single family residence

Fred and Olivia Skey

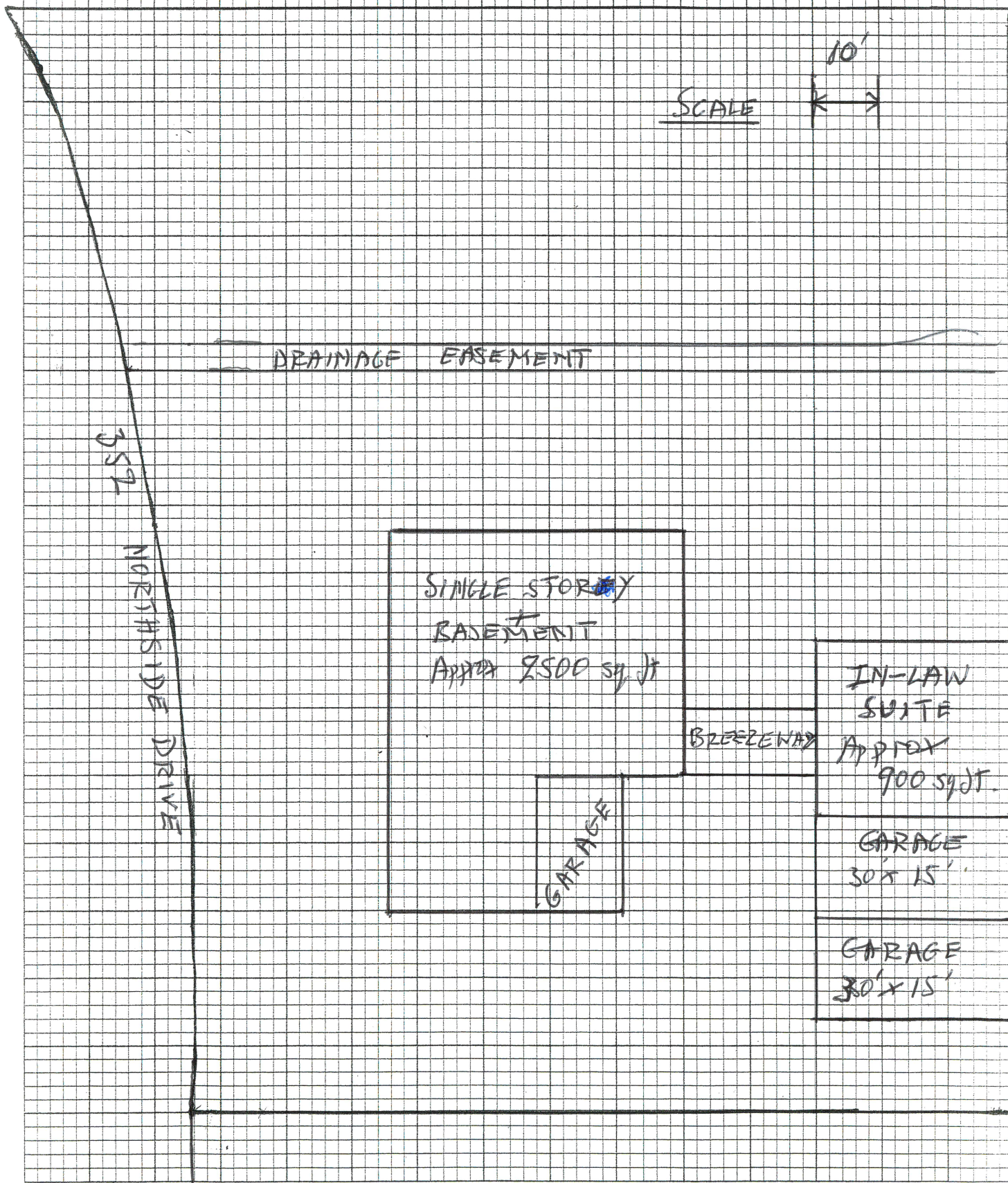
Eager for a walking lifestyle and desiring to live close to the square in downtown Gainesville, we were thrilled when one of our walks took us down Northside Drive. We knew as soon as we saw this lot that it was just the right location for us. Our hope is that we can build a new home here in 2022, living in a condo we own off Green St in the meantime. We plan to engage an architect who can assist us in the planning details, including an in-law suite and features that will allow us to age in place. If approved, this will allow us to actively engage and participate in the vibrant city life of Gainesville. We are excited at the prospect of walking and cycling on the Midtown Greenway as well as walking to almost everything - the square, library, post office, Frances Meadows Aquatic Center, History Center, Brenau, church, and events - and we will gladly work with the City to assure that our plans are compliant with all City plans and regulations. Thank you for your consideration.





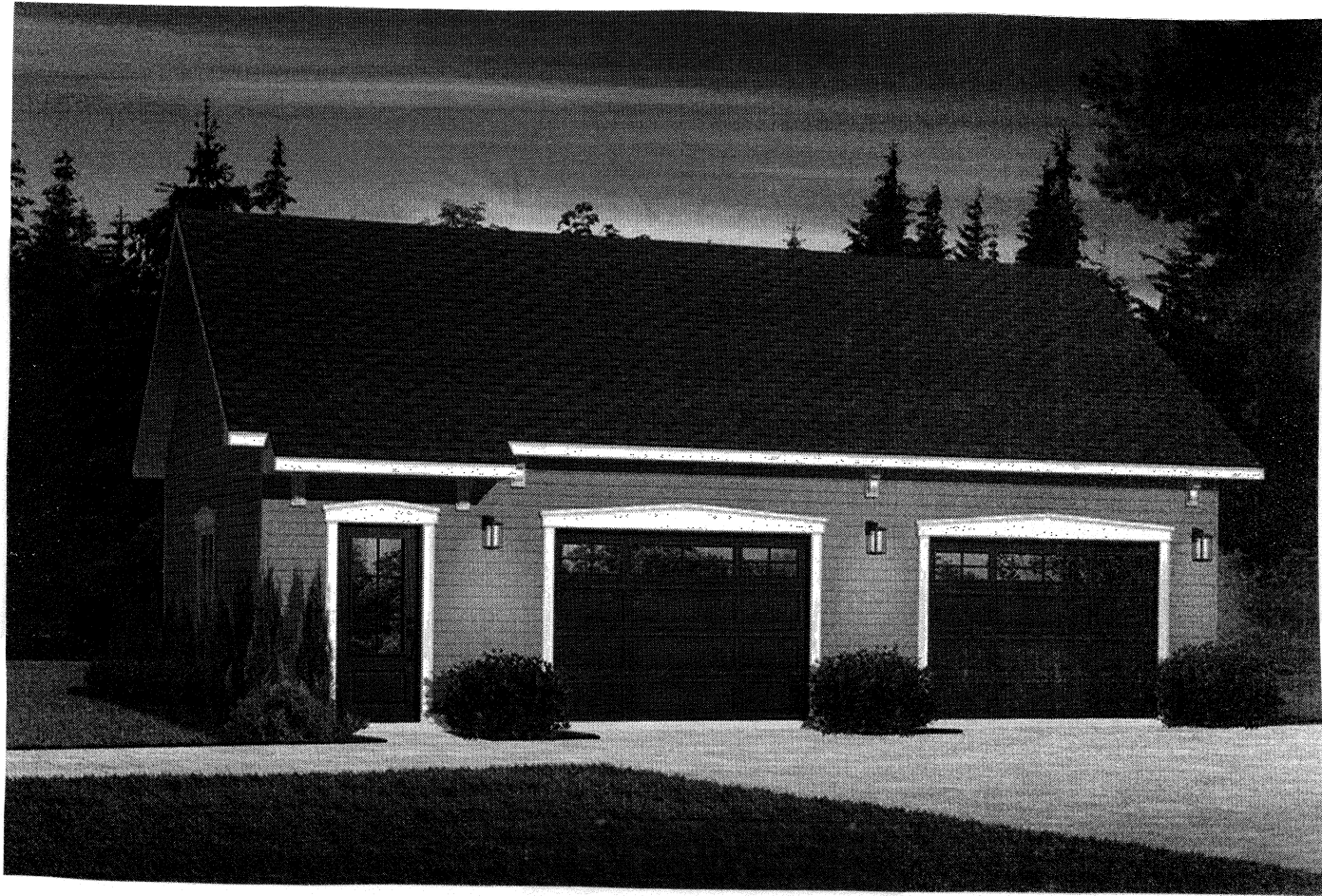


# CONCEPT PLAN

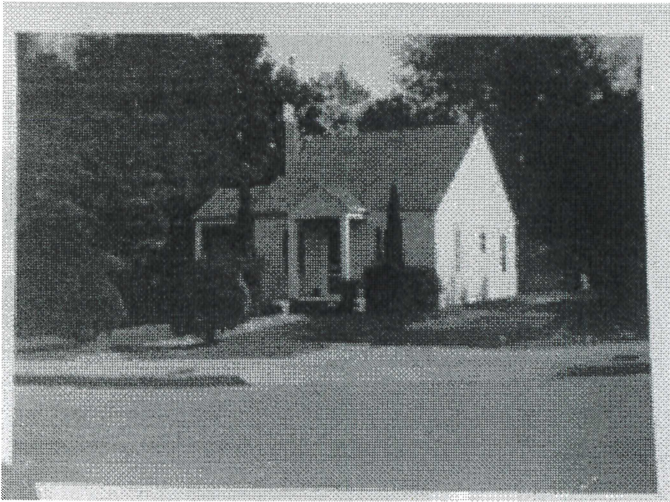












HOUSE THAT USED TO BE ON THE  
PROPERTY UP UNTIL ABOUT 1970  
UNTIL IT BURNED DOWN.  
EVIDENCE OF THE BASEMENT CAN  
STILL BE SEEN.

**Date Submitted:** 11/29/2021

**Presenter:** Matt Tate

**Item of Business:** Request from **Two Capital Partners** to rezone a 24.857± acres tract located on the southwest side of Shallowford Road and southeast side of the intersection of Skelton Road and Hudgins Street (a/k/a **600, 610 and 622 Shallowford Road, SW; 1515 Skelton Road, SW; 1448 and 1450 Hudgins Street, SW**) from Neighborhood Business (N-B) and General Business (G-B) to Planned Unit Development (P-U-D).  
Ward Number: Five  
Tax Parcel Number(s): 01-119C-001-001, 001A, 029, 029A, 029D and 031  
Request: Master planned mixed-use rental community

**Meeting Date:** 12/14/2021

**Purpose of Request:**

The proposed rezoning is for a mixed-use rental community to include a total of 385 residential units and 17,000 square feet of commercial retail space to be called "AVA Shallowford Station." The property is the site of the Gainesville Market "Blueridge" Shopping Center, outdoor soccer field, office/ warehouse and U-Haul dealer. Specifically, the residential component is intended to be 100% rental to include a 4-story, 200 unit multi-family apartment building, 2- to 3-story, 100 townhomes and 1- to 2-story, 85 single-family cottages. Apartments will range from studio, two and three bedrooms and ranging from 550 to 1,350 square feet in size. Townhomes will be two and three bedrooms ranging from 1,250 to 1,900 square feet with one-car garages. The single-family cottages will range from 1,650 to 2,200 square feet in size with one and two car garages. All proposed residential units will be market rate. Access is proposed from three existing driveways off of Shallowford Road to serve the commercial, apartments and cottages. As well, one driveway is proposed off of Skelton Road serving the townhomes. Surrounding uses include Target, the Army Reserve, single-family homes, Arby's, Gainesville Towne Center shopping center, Gallery Furniture and Jim Hardman auto dealership.

**History/Background:**

**Facts & Issues for Consideration:**

**Department Recommendation:**

Planning staff recommended denial of this request. See the Staff Recommendation report for details.

**Department Director:**

Rusty Ligon

**If funding is involved, are funds approved within the current budget?**

N/A

**Amount Requested:**

**Source of Funds:**

**Finance Comments:**

**Administrative Comments:**

**ATTACHMENTS:**

| Description                                          | Type            |
|------------------------------------------------------|-----------------|
| <input type="checkbox"/> Staff Recommendation Report | Report          |
| <input type="checkbox"/> Location Maps               | Backup Material |
| <input type="checkbox"/> Narrative                   | Backup Material |
| <input type="checkbox"/> Survey                      | Backup Material |

- Site Plan
- Architectural Renderings
- Traffic Impact Study

- Backup Material
- Backup Material
- Backup Material

**GAINESVILLE PLANNING and APPEALS BOARD  
STAFF RECOMMENDATION**

**Applicant** ..... Two Capital Partners  
**Property Owner** ..... Gainesville Market LLC; America's Home Place, Inc.; Barry Conner  
**Location**..... 600, 610 and 622 Shallowford Road, SW;  
1515 Skelton Road, SW; 1448 and 1450  
Hudgins Street, SW  
**Request**..... Rezone from N-B and G-B to P-U-D  
**Size** ..... 24.857± acres  
**Ward**..... Five  
**Proposed Use**..... Master planned mixed-use rental  
community  
**Planning Division Staff Recommendation** ..... **Denial**  
**Date**..... December 14, 2021

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▪ **Applicant's Proposal and Background Information**

The applicant is proposing to rezone the subject property from Neighborhood Business (N-B) and General Business (G-B) to Planned Unit Development (P-U-D) for a mixed-use rental community. The anticipated completion date of the project is the year 2024. The 24.857± acres property consists of six parcels of which three smaller parcels are zoned N-B and three larger parcels are G-B. The property is the site of the Gainesville Market "Blueridge" Shopping Center, an outdoor soccer field, office/warehouse building and U-Haul rental office.

The development is to include a total of 385 residential units and 17,000 square feet of commercial retail space to be called "AVA Shallowford Station." A full description of the proposed development standards can be found within the applicant's narrative which is provided with this rezoning request.

**Residential**

Specifically, the residential component is intended to be 100% market rate rentals to include a 200 unit multi-family apartment building (4-stories); 100 townhomes (2 to 3 stories) and 85 single-family cottages (1 to 3 stories). The apartments consist of 120 studio/1 bedroom units and 80 two bedroom units ranging from 550 to 1,350 square feet in size. The townhomes consist of two and three bedrooms ranging from 1,250 to 1,900 square feet in size with one-car garages. The single-family cottages will range from 1,650 to 2,200 square feet in size with one and two car garages. Exterior architectural standards for the residential products include a mixture of cementitious materials including Hardie plank, board and batten and brick materials.

**Amenities**

Some of the amenities include a 2,000+ square feet of fitness facilities, 1,700 to 2,000+ square feet of co-working facilities, multiple resort pools, outdoor living space, private dining/demonstration kitchens, tech-enable package locker systems, bike storage, virtual sports simulators, oversized dog parks and bark spas. The entire property will be professionally managed by an experienced multi-family residential operator specializing in Class-A apartment

communities. Solid waste is to be provided by the City of Gainesville except for the multi-family apartments, amenities and commercial uses.

### Commercial

Commercial space includes up to 15,000 square feet of retail or restaurant space and an additional 2,000 square feet of pop-up retail space fronting Shallowford Road.

### Access

Access is proposed from three existing driveways off of Shallowford Road to serve the commercial, apartments and cottages. As well, one driveway is proposed off of Skelton Road serving the townhomes; however, pedestrian connectivity will be provided to the apartment and cottage pods. The minimum driveway width is 24-feet with fire lanes being a minimum of 26-feet in width. Concrete sidewalks will be constructed throughout the complex with a well landscaped environment.

### Parking Ratio

- 2.0 parking spaces per single family cottage and townhome unit
- 1.3 spaces per multi-family unit
- 1 space per 125 square feet for restaurant space (Shared parking allowed)
- 1 space per 275 square feet of retail spaces (Shared parking allowed)

### Signage

A maximum of three (3) entry monument signs not to exceed 15-feet in height, 120 square feet of sign face and 160 square feet of sign structure area with decorative internal or external lighting. In addition, no more than three (3) blade signs located on the retail building.

### ▪ **Adjacent Land Use and Zoning**

| Location | Use                                                                                        | Zoning                                                                                           |
|----------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| North    | Target, Lowe's and Walmart<br>US Army Reserve Center                                       | Regional Business (R-B) -City<br>Highway Business (H-B) -County                                  |
| South    | Gainesville Towne Center (Big Lots /<br>Harbor Freight); Jim Hardman; Gallery<br>Furniture | General Business (G-B) -City                                                                     |
| East     | Arby's restaurant, Walgreen's, Regions<br>Bank branch                                      | General Business (G-B) -City                                                                     |
| West     | Single-family homes; Crowder Signs                                                         | Residential-I (R-I) -County<br>Highway Business (H-B) -County<br>Suburban Shopping (S-S) -County |

Other significant uses within the area include Lakeshore Mall and the Walton Harbor Apartments under development.



### ▪ **Traffic Summary**

A Traffic Impact Study was conducted for the proposed development on September 10, 2021. A brief summary of the findings is provided below. The entire study is provided as part of the supporting documents. Of note, the study was based off of a total of 336 residential units and 12,500 square feet of commercial space which is less than the actual proposed 385 residential units and 17,000 square feet of commercial space.

#### Studied intersections:

1. Skelton Road at U-Haul Driveway/Future Site Driveway #1\*\*\*
2. Shallowford Road at Skelton Road
3. Shallowford Road at Albert Street/Commercial Driveway #1/Future Site Driveway #2\*\*\*
4. Shallowford Road at Regions Bank Driveway/Commercial Drive #2/Future Site Driveway #3\*\*\*
5. Shallowford Road at Commercial Driveway #3/Future Site Driveway #4\*\*\*
6. Pearl Nix Parkway at Shallowford Road

An average traffic growth rate of 1.3% was established for each year for a 5-year and 15-year period. The estimated build out date for the entire development is 2024. The estimated total new trips include 2,597 daily trips, 1,297 Peak Hour trips entering and 1,300 trips exiting; 115 AM Peak Hour trips entering /154 AM trips exiting; 135 PM Peak Hour trips entering / 99 PM trips exiting.

Based on the findings in this study, the proposed project is not expected to significantly impact the roadway network surrounding the development. However, the stop controlled intersection at Shallowford Road and Driveway #3 across from Albert Street will continue to experience a Level of Service E during the PM peak period with northbound left turn movements.

The eastbound left-turn queue at the intersection of Pearl Nix Parkway and Shallowford Road is expected to extend beyond the existing storage bay during the PM peak period. Currently, the striped left-turn lane is only 80'; however, the left-turn lane could be extended by utilizing the existing two-way left turn lane (TWLTL) along Shallowford Road. If queues in excess of 80' are experienced, it is expected that the existing TWLTL will accommodate the additional vehicles without affecting the operation at this intersection, or those in the immediate vicinity. Additionally, the eastbound left-turn movement is not currently receiving a lot of green time in the existing timing parameters. It is expected that small increments of green time for the eastbound left-turn movement will reduce the queue lengths currently shown in the table above.

### ▪ **Other Departmental Comments**

Coordination will be required from the Gainesville Public Works Department and the Georgia Department of Transportation (GDOT) regarding access improvements to the site.

Further discussion will be needed regarding the solid waste service from the City. The City can provide solid waste pick-up for the single-family detached cottages and possibly the townhomes depending on accessibility and other criteria. The multi-family apartments, businesses and all amenity areas will be handled privately.

There were no comments from other departments for this request.

### ▪ **Zoning History**

*The following zoning actions have taken place in the immediate area during the last ten years:*

**2019** – A request by the Gainesville Housing Authority to rezone a 6.822± acres tract located at 320 Tower Heights Road from Residential-II (R-II) to Planned Unit Development (P-U-D) was approved with conditions for multi-family apartments.

**2018** – A request by REB Land Development, LLC to rezone a 2.744± acres tract located at 621 Lakeshore Drive from Residential-I (R-I) to General Business (G-B) for a multi-tenant retail, office and restaurant was withdrawn.

**2017**- A request by Gainesville Market, LLC for a special use within General Business (G-B) zoning on a 5.0± acres located at 600 Shallowford Road was approved with conditions for a commercial outdoor recreational facility.

**2017** – A request by Masy Seng to annex a 0.19 ± acre tract with a zoning of General Business (G-B) located at 593 and 597 Shallowford Road was conditionally approved for a donut shop.

▪ **Staff Analysis**

**(1) Is the proposed use suitable in view of the zoning and development of adjacent and nearby property?**

The subject property is located within the heart of a regional shopping district. The surrounding uses mostly non-residential uses to the north, south and east with zonings of General Business (G-B), Highway Business (H-B), Reginal Business (R-B) and Neighborhood Business (N-B). The property located to the west is located within unincorporated Hall County and consist of mostly single-family homes and small businesses zoned Residential-I (R-I), Highway Business (H-B) and Suburban Shopping (S-S). The proposed location of the retail/restaurant component is consistent with the adjacent uses. The proposed residential component includes 385 residential units which appears to be too aggressive for the property.

**(2) Will the proposed use adversely affect the existing use or usability of adjacent or nearby property?**

The proposed mixed-use development will increase traffic loads and turning movements along Shallowford Road and Skelton Road given the scale of the proposal. Based on the proposed plan, the existing residential homes to the west along Hudgins Street will be buffered and no direct access is proposed. However, the adjacent residential streets located within the county serve as a cut through from Browns Bridge Road, Skelton Road and Shallowford Road.

**(3) Is the proposed use compatible with the purpose and intent of the Comprehensive Plan?**

The subject property is located within the *Retail/Commercial* land use category which includes commercial service activities such as grocery stores, banks, restaurants, theatres, hotels, and automotive related businesses. Commercial uses may be located as a single use in one building or grouped together in a shopping center.

The subject property is also located within the *Browns Bridge Corridor* Character Area. The vision for this area encourages long term activity center nodes at the Pearl Nix Parkway intersection to include public space improvements, better pedestrian facilities and connections. Targeted redevelopment of outdated strip commercial is also encouraged.

Residential uses are not listed as an appropriate use based on the Future Land Use Map but may be considered where appropriate within the Character Area at the appropriate residential density

between 4 to 12 dwelling units per acre. The proposal is for a mixed-use development which includes up to 17,000 square feet of commercial space and 385 market-rate rental units at a density of 15.5 dwelling units per acre. Staff believes the proposal as presented is too dense and should be reduced by a *minimum* of 85 units. This is based on the subject property being located within an established commercial corridor and within the *Retail/Commercial* land use category.

**(4) Are there substantial reasons why the property cannot or should not be used as currently zoned?**

The property is currently zoned Neighborhood Business (N-B) and General Business (G-B). Most of the property is blighted and should be redeveloped. A zoning of P-U-D may be appropriate for the site at the appropriate density range under 12 dwelling units per acre.

**(5) Will the proposed use cause an excessive or burdensome use of public facilities or services, including but not limited to streets, schools, water or sewer utilities, and police or fire protection?**

Existing water and sewer are currently on site and there is sufficient capacity.

Gainesville Fire Station #1 located off of Queen City Parkway is approximately 2.0± miles from the subject property and currently serves the site.

According to the Traffic Study for the proposed rezoning request, the estimated total new trips include 2,597 daily trips, 269 AM Peak Hour trips and 234 PM Peak Hour trips.

The proposed request will have impact on the City School System given a total of 385 residential units are proposed. The actual number of school aged children is unknown. It's expected that not all would be occupied by children given that some of the rental units are studio, one and two bedroom units.

**(6) Is the proposed use supported by new or changing conditions not anticipated by the Comprehensive Plan or reflected in the existing zoning on the property or surrounding properties?**

The surrounding area falls within a mixed-use area which contains some older properties in need of redevelopment. The anticipated future uses for the surrounding area are primarily for non-residential purposes given the surrounding commercial and availability of sewer. Limited residential development is plausible to help support existing and new commercial uses.

**(7) Does the proposed use reflect a reasonable balance between the promotion of the public health, safety, morality, or general welfare and the right to unrestricted use of property?**

Due to the Comprehensive Plan, proposed residential density and the adjacent commercial uses, the proposal does not appear to reflect a reasonable balance between the promotion of the public health, safety, morality, or general welfare and the right to unrestricted use of the property.

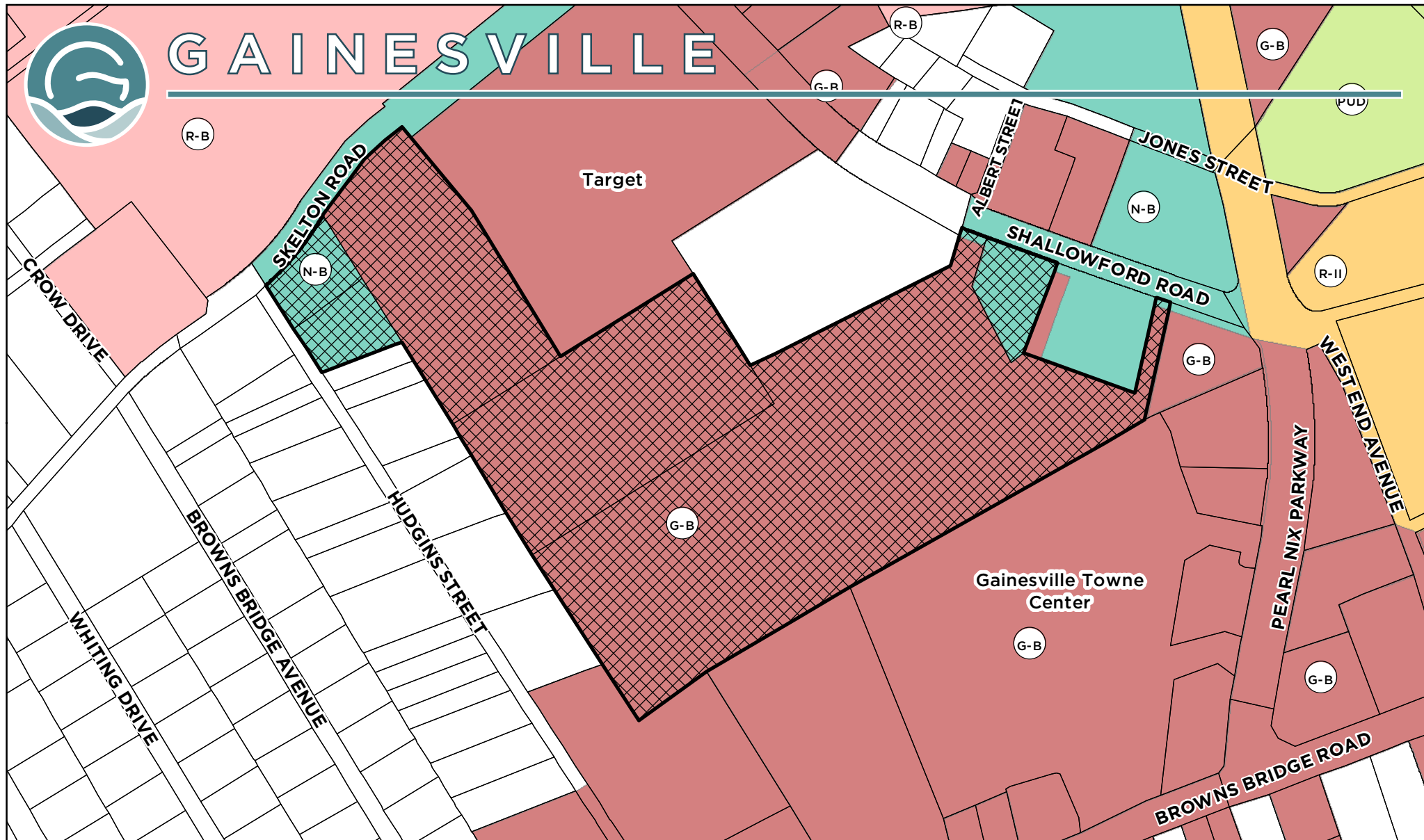
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▪ **Staff Recommendation**

The Planning Division staff is recommending **denial** of this request based on the Comprehensive Plan, proposed residential density and the adjacent commercial uses.



# GAINESVILLE



Applicant: **TWO CAPITAL PARTNERS**

## REZONING REQUEST

**Subject Property Addresses:**

600, 610 & 622 Shallowford Road, SW  
1448 and 1450 Hudgins Street, SW  
1515 Skelton Road

**Tax Parcels:**

01-119C-001-001, 001A, 029,  
029A, 029D and 031

**Request:**

Rezone 24.857+/- acres from Neighborhood Business (N-B)  
and General Business (G-B) to Planned Unit Development (P-U-D)  
for a master planned mixed use rental community.



Subject Property



Meeting Date: 12/14/2021

Map Prepared: 11/10/2021

0 175 350 Feet  
Page 957 of 1097

SCALE: 1" = 300'





# GAINESVILLE



Applicant: **TWO CAPITAL PARTNERS**

## REZONING REQUEST

**Subject Property Addresses:**

600, 610 & 622 Shallowford Road, SW  
1448 and 1450 Hudgins Street, SW  
1515 Skelton Road

**Tax Parcels:**

01-119C-001-001, 001A, 029,  
029A, 029D and 031

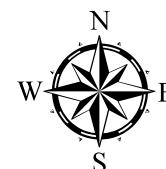
**Request:**

Rezone 24.857+/- acres from Neighborhood Business (N-B)  
and General Business (G-B) to Planned Unit Development (P-U-D)  
for a master planned mixed use rental community.



Subject Property

AERIAL FROM 2021



Meeting Date: 12/14/2021

Map Prepared: 11/10/2021

0 175 350 Feet  
Page 958 of 1097

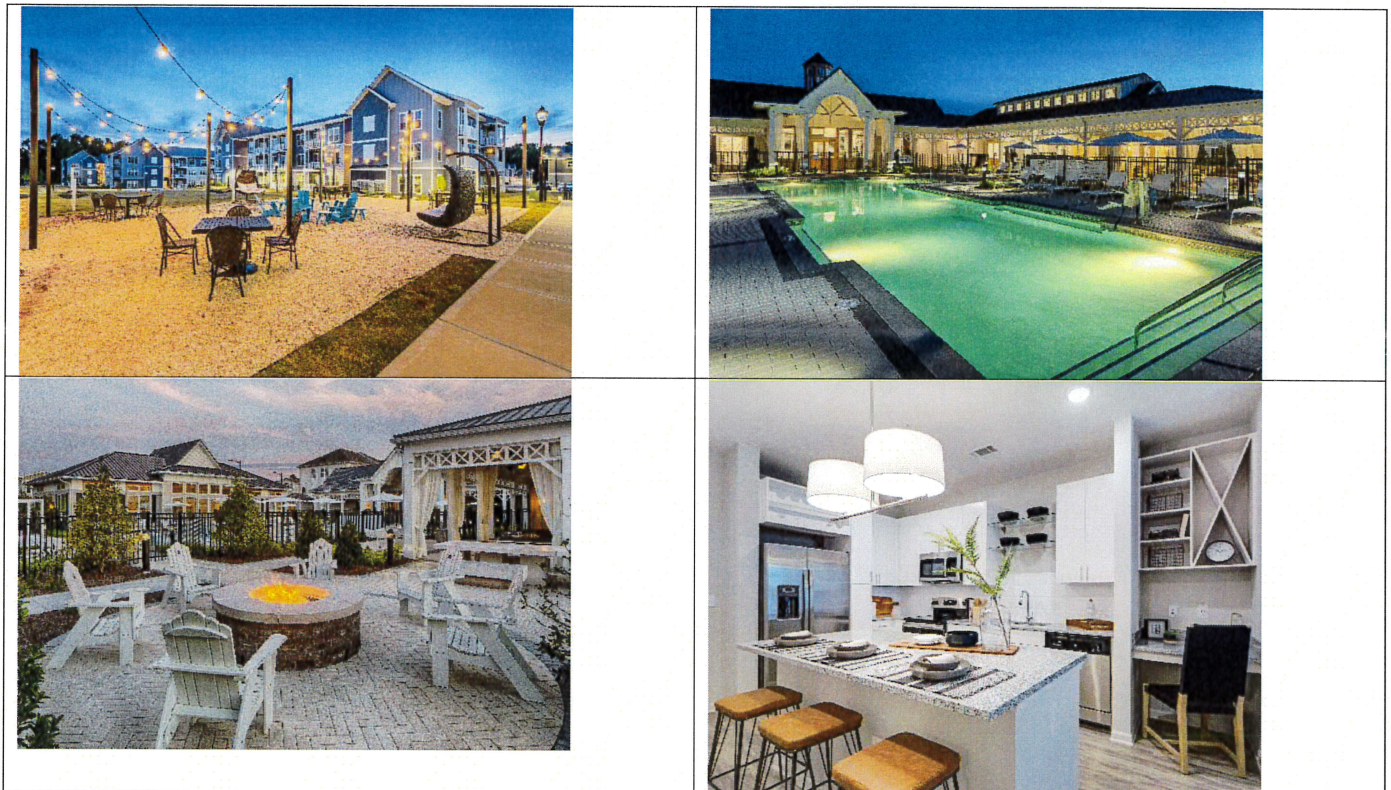
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**Zoning Narrative**  
**AVA Shallowford Station,**  
Master Planned Mixed Use Rental Community  
By:



THE CITY OF GAINESVILLE, GEORGIA



August 27, 2021

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- B. Residential Units
- C. Building Heights & Massing
- D. Professional Management
- E. Utilities
- F. Signage
- G. Landscape
- H. Lighting
- I. Streets & Sidewalks
- J. Trees
- K. City Benefit
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### **VI. APPENDIX**

- A. Boundary Survey
- B. Legal Description
- C. Concept Plan
- D. Zoning Plan
- E. Multi-Family Product
- F. Amenity Vision
- G. Townhome & Single Family Product

## EXECUTIVE SUMMARY

AVA Shallowford Station is a Planned Unit Development located at 610 Shallowford Road within the limits of the City of Gainesville, Georgia. The property is located within the Browns Bridge Character Area and with access to Shallowford Road and Skelton Road

The property is an assemblage of several individual parcels with an aggregated parcel totaling 24.857 +/- acres. The property is contiguous and contains a former home used for office and the former Blue Ridge Shopping Center.

The current zoning of the property includes:

GB – General Business

NB – Neighborhood Business

Currently, the site is mostly an old and functionally obsolete shopping center. There are no streams or wetlands on the site and no known historical sites. The property is bounded by a number of uses and zoning districts including G-B, H-B, S-S and R-1.

The development concept is an innovative urban master plan, mixed use, rental community incorporating multiple types of residential and retail uses. The project will include: 1) a four story apartment project consisting of Studios, one, two, and three bedrooms ranging in size from 550-1,350sf; 2) Two and Three story Townhomes with two and three bedrooms ranging from 1,250-1,900sf; and 3) One and two story detached Single-Family Cottages ranging from 1,650sf- 2,200+sf. The SF and TH will self-park with a combination of one and two car garages and driveways. The MF parking will be provided at a ratio of 1.30 spaces per unit. All units in the development will lease at market rates and none of the units will be subsidized.

TWO Capital Partners focuses on an affluent renter by choice who desires the full suite of services and amenities our communities offer, and in varying residential product types as they age and their needs of housing change. Our customer tends to be older, more affluent, and with higher educational attainment levels than the overall trade area demographic. TWO's developments have very robust amenities that include: 2,000 sf+ fitness facilities, 1700-2000 sf co-working facilities, multiple luxury resort pools with expansive focus on outdoor living, private dining/demonstration kitchens, tech-enable package locker systems, virtual sports simulators, and oversized dog parks and bark spa's. Our unit amenities continue this trend with oversized Kitchens, including expansive eat in islands, mud-rooms, built in desks, large walk in closets, luxury finishes, and multiple tech-enabled features including keyless entry, smart thermostats, in unit Bluetooth enabled speaker system, and in select units smart lighting.

The property will have easy vehicular access to Browns Bridge Road, Dawsonville Highway and downtown Gainesville. It is strategically located for quick access to I-985 via Queen City Parkway. Pedestrian access to a variety of retail and commercial uses will be provided.

## COMPREHENSIVE PLAN CONSISTENCY

The AVA Shallowford Station Planned Unit Development is consistent with the City of Gainesville's vision for future land use in Urban Redevelopment Areas.

The intent of a Planned Unit Development (PUD) is to:

- Provide for maximum flexibility in the mixture and arrangement of land uses and unique and innovative land planning via planned unit developments, at appropriate locations, and with appropriate sizes and scales.
- Redevelopment and infill opportunities of underutilized and re-purposed sites are one of Gainesville's greatest challenges as their redevelopment can help further transform these areas for more desirable uses. Development of these infill sites can reduce the need to travel further to shop or work, preserve lands further out, and provide better utilization of existing infrastructure.

With proper planning, well designed architectural themes and an emphasis on livability, the goal of the AVA Shallowford Station Planned Unit Development is to provide a high level of compatibility with City of Gainesville's 2040 Comprehensive Plan Goals for the Browns Bridge Corridor as follows:

1. Targeted redevelopment of outdated strip commercial
2. Provide for a vibrant, human-scaled and pedestrian friendly community.

This new community will integrate seamlessly within the City's goal of bringing medium density, mixed use development to this corridor. The efforts of the City to redevelop this area will be benefited by another high quality project mixed use project with multiple housing options.

AVA Shallowford Station will set the example as a well-conceived redevelopment by not only meeting the Comprehensive Plan goals but also by transforming neglected and outdated resources into a livable community that will create new living opportunities for Gainesville's growing urban population.

## DEVELOPMENT SUMMARY

|                               |                                                                                                                                                                                                                                                                                  |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Property Address:</b>      | 610 Shallowford Road, Lot 165 & 170, 9th District, Gainesville, Georgia                                                                                                                                                                                                          |
| <b>Site Area:</b>             | 24.857 AC +/-                                                                                                                                                                                                                                                                    |
| <b>Existing Zoning:</b>       | GB – General Business & N-B – Neighborhood Business                                                                                                                                                                                                                              |
| <b>Existing Conditions:</b>   | Dilapidated and functionally obsolete shopping center                                                                                                                                                                                                                            |
| <b>Proposed Uses:</b>         | A mixed use, urban planned development incorporating vibrant, human-scaled living spaces, abundant interior and exterior amenity, retail, a pedestrian friendly location.                                                                                                        |
| <b>Proposed Density:</b>      | 15.5 DU/AC                                                                                                                                                                                                                                                                       |
| <b>Site Development:</b>      | <p>Maximum Residential Units: 385<br/>Multi-Family – 200 (220,000 NRSF)<br/>Townhomes – 100<br/>Single Family - 85</p> <p>Maximum Commercial Square Footage<br/>Retail or Restaurant – 15,000 sf<br/>Pop Up Retail – 2,000 sf</p>                                                |
| <b>Max. Structure Height:</b> | <p>Multi-Family - 60', measured from the average grade plane to the top of the roof (not including parapet heights). Parapet heights shall not exceed 65', measured from the average grade plane to the top of the parapet.</p> <p>Single Family &amp; Townhomes – 3 stories</p> |
| <b>Open Space:</b>            | As exhibited in the Concept Plan, community Open Space will be provided in throughout the project.                                                                                                                                                                               |
| <b>Parking:</b>               | As shown for each use in the General Guidelines, located throughout the development via driveways and surface lots.                                                                                                                                                              |
| <b>Flexibility:</b>           | As the Developer progresses with design and approval of the project, it is understood that minor revisions may occur to the Concept Plan and that staff level approval will be granted as long as overall design intent and proposed density are not be exceeded.                |



## AERIAL OVERVIEW



DRAWINGS AND SPECIFICATIONS ARE PROPRIETARY AND PROPERTY OF TWO CAPITAL PARTNRS. NO USAGE ON ANY OTHER PROJECT OR DESIGN PERMITTED. VIOLATIONS SUBJECT TO FULL PROSECUTION UNDER LAW. USAGE FOR ANY REASON OUTSIDE OF THIS SPECIFIC PROJECT MUST HAVE WRITTEN PERMISSION FROM MCNEAL TWO CAPITAL PARTNERS.

## **GENERAL GUIDELINES**

### **A. PARKING**

Parking is being proposed as follows:

- 1.3 parking spaces per multi-family unit
- 1/125 SF for Restaurant (shared parking allowed)
- 1/275 SF for Retail (shared parking allowed)
- 2.0 parking spaces per single family unit
- 2.0 parking spaces per townhouse unit

### **B. RESIDENTIAL UNITS**

The multi-family units will consist of a mix of Apartments, Single-Family Detached, and attached Townhomes ranging from studios to four-bedrooms.

### **C. BUILDING HEIGHTS & MASSING**

Structure heights are permitted to a maximum sixty feet (60'), measured from the average grade plane to the top of the roof (not including parapet heights). Parapet heights shall not exceed 65', measured from the average grade plane to the top of the parapet.

### **D. PROFESSIONAL MANAGEMENT**

The property will be professionally managed by an experienced multifamily residential operator specializing in Class-A apartment communities. The property management company will be responsible for maintenance of the complex as well as leasing and amenities.

### **E. UTILITIES**

The City of Gainesville will provide water and sewer services via existing adjacent infrastructure. Power and natural gas will be provided by Georgia Power. Garbage collection will be provided by the City of Gainesville. Storm water management is proposed through surface ponds or underground facilities as dictated by the final design.

### **F. SIGNAGE**

Up to three entry signage monuments, at a height maximum of fifteen feet (15') each, with a maximum sign face area of 120 sf and a maximum sign structure area of 160 sf, identifying the project will be placed in future locations, to be determined, at complex's entry along Skelton Road and Shallowford Road. The monuments will be illuminated with decorative lighting for wayfinding purposes. Up to three additional blade signs may be located on the retail building.

Entry monuments, supporting decorative landscape and infrastructure (such as landscape lighting & irrigation) shall occur outside of the public Rights-of-Way and therefore will be exempt from City & State encroachment requirements.

### **G. LANDSCAPE**

Decorative and supplemental landscaping may be provided throughout the development, adjacent to the Public Right-of-Way, and internal to the complex. Decorative landscape and infrastructure (such as landscape lighting & irrigation) shall occur at key focal points within the property.

### **H. LIGHTING**

The Developer will prepare a lighting plan for street lights (in conjunction with Georgia Power) and may also provide decorative building, landscape, site & tree lighting throughout the development and adjacent to the public streets surrounding the property. Buildings and entry

signage may be illuminated for the purposes of safety and wayfinding.

**I. STREETS & SIDEWALKS**

The Developer will construct interior driveways to serve access to the complex. The minimum driveway width will be twenty-four (24'), with fire lanes being a minimum of twenty-six (26'). Access to and from the complex will occur over public Rights-of-Way from existing streets.

Concrete sidewalks will be constructed throughout the complex with interconnectivity to the amenities and other public sidewalks systems along Shallowford Road.

**J. TREES**

Street trees and other shade and decorative trees will be planted throughout the complex with the intent of creating a well landscaped environment that is both functional and aesthetically pleasing.

**K. CITY BENEFIT**

AVA Shallowford Station will provide The City of Gainesville with an innovative urban Planned Unit Development incorporating multiple housing options and lifestyle amenities for an active residential living opportunity in the rapidly redeveloping Browns Bridge Corridor.

The development will bring additional residents to the Browns Bridge Corridor to support existing and future businesses. Residents will be within walking distance to many of these businesses, which will allow them to not use their car to access local businesses and in turn reduce traffic congestion.

**L. COMMUNITY AMENITIES**

- Located in Browns Bridge Corridor where residents will be able to walk to a variety of retail opportunities including big box stores and fast casual restaurants.
- Direct connection to the public sidewalk system along Shallowford Road.
- On-site community retail
- Expansive park area along Shallowford Road with popup retail pods for community gathering and sense of arrival.
- Expansive community amenities located both in the Multi-Family building as well as along the common greenway in the Single-Family district.
- Large 2,000 sf Co-Working Facility
- High-speed Wi-Fi for resident use in all amenity spaces.
- 2,000 sf+ Fitness Center with high-end Fitness Equipment and Yoga Room with Fitness on Demand classes overlooking the resort-style pool.
- Multiple Resort-style saltwater pool with sundeck and outdoor pavilion with gas grilling station (one at the MF bldg. and one at the SF District).
- Pet Spa with washing and drying stations, and outdoor dog park.
- Bike Storage with repair stations.
- Indoor Mail and Package Storage Room, plus Package Concierge provider Fetch that allows residents to schedule package delivery to their apartment.
- Dry Cleaning Lockers.
- Access control to the conditioned corridor buildings.

**M. Residential Unit Features**

- Multiple product types and Floorplans with 9 Foot Ceilings Throughout.
- SF & TH include one and two car garages with private backyards.
- Gourmet kitchens with stainless steel appliances, and large eat in islands.
- Granite and quartz countertops (depending on unit type) and luxury cabinets with tile backsplash plus under cabinet lighting.
- Energy efficient LED light fixtures throughout the home.
- Wood-style flooring throughout Kitchen, Living Room, Bathroom, and Bedroom (depending on unit type).
- Ceiling Fans in Bedrooms.
- Oversized Closets with Ample Storage.
- Full Size Washer and Dryer in unit.
- Private Balcony or Patio in Unit.
- In unit Bluetooth speaker system
- Select ground floor units will have direct access stoops, allowing residents to enter their unit from the street.
- Smarthome thermostats and integrated USB ports in Kitchens.
- High-speed Fiber Internet Service to each unit.



# **SURVEY NOTES**

1. THE FIELD DATA DATED 7/22/21 UPON WHICH THIS PLAT IS BASED HAS A CLOSURE PRECISION OF ONE FOOT IN 423,869 FEET AND AN ANGULAR ERROR OF 8" SECONDS PER ANGLE AND WAS ADJUSTED USING THE COMPASS RULE. A TRIMBLE S-SERIES ROBOTIC TOTAL STATION WAS USED FOR ANGULAR AND LINEAR MEASUREMENTS.
2. THIS PLAT HAS BEEN CALCULATED FOR CLOSURE AND IS FOUND TO BE ACCURATE WITHIN ONE FOOT IN 423,869 FEET.
3. THE HORIZONTAL DATUM FOR THIS SURVEY IS THE NORTH AMERICAN DATUM OF 1983 (NAD 83 GEORGIA WEST ZONE) AND THE VERTICAL DATUM USED IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD83) AS DETERMINED BY UTILIZING GPS. THE EQUIPMENT USED TO OBTAIN THIS DATA WAS A DUAL FREQUENCY TRIMBLE R10 GPS RECEIVER WITH A TRIMBLE TSC3 DATA COLLECTOR RECEIVING RTK CORRECTIONS VIA A WIRELESS NETWORK FROM BASE STATIONS OPERATED BY TRIMBLE NAVIGATION. THE AVERAGE RELATIVE POSITIONAL ACCURACY OBTAINED ON THE POSITIONS UTILIZED IN THIS SURVEY WAS 0.04 FT. HORIZONTAL AND 0.07 FT. VERTICAL. THESE VALUES WERE DERIVED FROM GPS PROCESSING SOFTWARE. THE REMAINDER OF THE FIELD WORK WAS PERFORMED WITH CONVENTIONAL EQUIPMENT AS DESCRIBED ABOVE.
4. THE UNDERGROUND UTILITIES SHOWN HEREIN HAVE BEEN MARKED BY UTILITY MARKING, INC. (678-327-1948) DATED 7/10/21 AND FIELD LOCATED BY ROCHESTER & ASSOC., INC. PERSONNEL. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
5. NO IDENTIFIED AND DELINEATED WETLANDS WERE OBSERVED DURING THE COURSE OF THE FIELD SURVEY. HOWEVER THIS SURVEYOR DID NOT DO A THOROUGH INSPECTION OF THE INTERIOR OF THIS SITE. THEREFORE EXCEPTION IS MADE HEREIN TO ANY WETLANDS THAT MAY EXIST WITHIN THE BOUNDARIES OF THIS SITE.
6. NO PORTION OF THIS SURVEY IS LOCATED IN A FLOOD HAZARD ZONE PER F.E.M.A. INSURANCE RATE MAP OF HALL COUNTY, GEORGIA. MAP NO. 1313C0188G & 1313C0187G, REVISED DATE APRIL 4, 2018.
7. DURING THE FIELD SURVEY PERFORMED ON THIS SITE THERE WERE NO VISIBLE ABOVE GROUND EVIDENCE OF A HUMAN BURIAL AREA OR CEMETERY OBSERVED. HOWEVER, THIS SURVEYOR DID NOT PERFORM A THOROUGH INSPECTION OF THE INTERIOR OF THIS SITE. THEREFORE EXCEPTION IS MADE HEREIN TO ANY HUMAN ANCHORS OR CEMETERIES THAT MAY EXIST WITHIN THE BOUNDARIES OF THIS SITE.
8. THIS PROPERTY MAY BE SUBJECT TO EASEMENTS, RESERVATIONS, RIGHT-OF-WAY, OR RESTRICTIONS WHICH ARE NOT RECORDED OR NOT DISCLOSED BY THE TITLE COMMITMENT OR OTHERWISE UNKNOWN TO THE SURVEYOR; THEREFORE EXCEPTION IS TAKEN TO ANY SUCH ITEMS.
9. ALL PROPERTY CORNERS REFERENCED AS "PS" INDICATES A 1/2" REBAR PLACED WITH A YELLOW PLASTIC CAP STAMPED "ROCHESTER-LSF000484", UNLESS OTHERWISE NOTED.
10. THIS PLAT IS FOR THE EXCLUSIVE USE OF THE ENTITIES SHOWN HEREIN; ANY USE BY THIRD PARTIES IS AT THEIR OWN RISK.
11. ALL DISTANCES AS SHOWN ARE HORIZONTAL GROUND DISTANCES IN U.S. FEET (39.37 INCHES = 1 METER).
12. NO ZONING REPORT OR LETTER WAS PROVIDED AT THE TIME OF THE SURVEY. (TABLE A, ITEM (c)).
13. THERE WAS NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELD WORK. (TABLE A, ITEM 1B).

THIS BLOCK RESERVED FOR THE CLERK OF THE SUPERIOR COURT



## **LEGEND**

- AL - ALUMINUM ALLOY FOUND
- BL - BACK OF CURB
- BS - BUILDING SETBACK LINE
- CC - CONCRETE
- CL - CURB & BUTTER
- CM - CONCRETE MASONRY
- CP - CURB INLET
- CS - CONCRETE
- CT - CONCRETE
- CU - CHAIN LINK FENCE
- CV - CONCRETE VERTICAL FOUND
- CF - CONCRETE FOUND
- CG - CONCRETE GROUND
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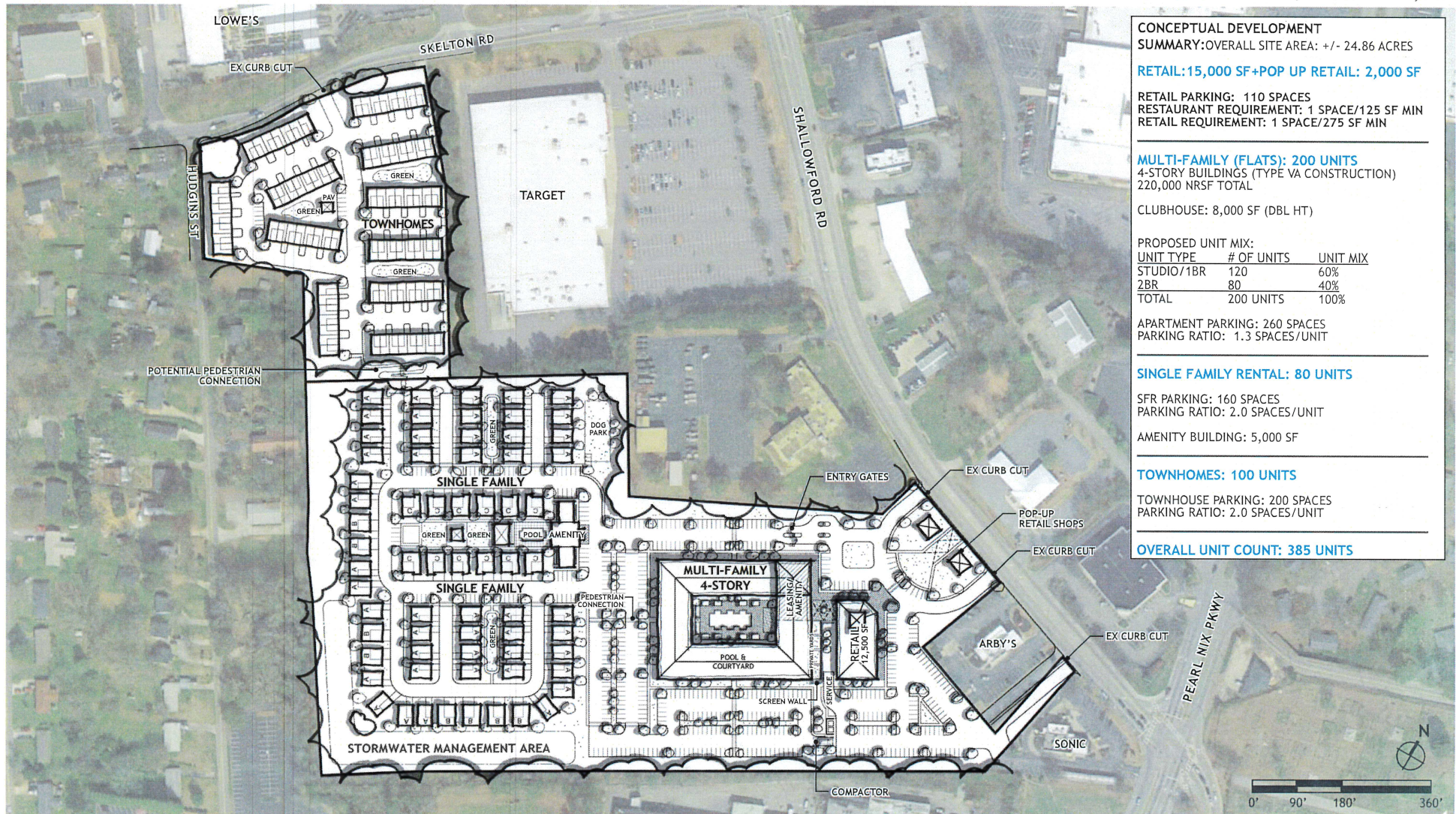






# Conceptual Site Plan

Shallowford Rd | Gainesville, GA



DEVELOPER & APPLICANT:  
TWO CAPITAL PARTNERS  
3060 PEACHTREE ROAD NW,  
SUITE 960  
ATLANTA, GA 30305

EXISTING ZONINGS:  
G-B & N-B

PROPOSED ZONING:  
PUD

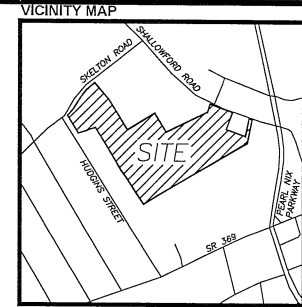
TOTAL SITE AREA:  
24.86± ACRES

| Dimensional Standards for Townhomes        |                           |
|--------------------------------------------|---------------------------|
| Existing Zoning                            | N-B & G-B                 |
| Maximum # of Units                         | 100                       |
| Maximum # Units per Building               | 8                         |
| Exterior Setback to G-B Zoning             | 10'                       |
| Exterior Setback to R-3 Zoning             | 10'                       |
| Exterior Setback to Hudgins Street         | 10'                       |
| Streets                                    | Private                   |
| Water & Sewer Provider                     | City of Gainesville       |
| Sidewalks                                  | as shown on Concept Plan  |
| Amenities                                  | shared with Single Family |
| Minimum lot width @ building line          | 18'                       |
| Minimum lot depth                          | 100'                      |
| Minimum lot area                           | 1800 sf                   |
| Maximum height                             | 35'                       |
| Front setback                              | 0'                        |
| Rear (Garage) setback from Street          | 5'                        |
| Side setback                               | 0'                        |
| Side separation (foundation to foundation) | 20'                       |
| Minimum heated floor area                  | 1250 sf                   |

| Dimensional Standards for Single Family    |                          |
|--------------------------------------------|--------------------------|
| Existing Zoning                            | G-B                      |
| Maximum # of Units                         | 85                       |
| Maximum # Units per Building               | 1                        |
| Exterior Setback to H-B Zoning             | 10'                      |
| Exterior Setback to H-S Zoning             | 10'                      |
| Exterior Setback to S-S Zoning             | 10'                      |
| Exterior Setback to R-1                    | 10'                      |
| Streets                                    | Private                  |
| Water & Sewer Provider                     | City of Gainesville      |
| Sidewalks                                  | as shown on Concept Plan |
| Amenities                                  | shared with Townhomes    |
| Minimum lot width @ building line          | 24'                      |
| Minimum lot depth                          | 100'                     |
| Minimum lot area                           | 2400 sf                  |
| Maximum height                             | 35'                      |
| Front setback                              | 0'                       |
| Rear (Garage) setback from Street          | 0'                       |
| Side setback                               | 0'                       |
| Side separation (foundation to foundation) | 10'                      |
| Minimum heated floor area                  | 1650 sf                  |

| Dimensional Standards for Multi-Family     |                          |
|--------------------------------------------|--------------------------|
| Existing Zoning                            | G-B                      |
| Maximum # of Units                         | 200                      |
| Net Rentable Square Footage                | 220,000 sf               |
| Exterior Setback to H-B Zoning             | 10'                      |
| Exterior Setback to H-S Zoning             | 10'                      |
| Exterior Setback to Shallowford Road       | 10'                      |
| Streets                                    | Private                  |
| Water & Sewer Provider                     | City of Gainesville      |
| Sidewalks                                  | as shown on Concept Plan |
| Amenities                                  | pool, fitness            |
| # Studio/1 BR Units (projected)            | 120*                     |
| # 2 BR Units (projected)                   | 80*                      |
| Minimum heated floor area - Studio         | 500 sf                   |
| Minimum heated floor area - 1 BR           | 650 sf                   |
| Minimum heated floor area - 2 BR           | 900 sf                   |
| *Final unit type breakdown may vary by 20% |                          |

| Dimensional Standards for Retail              |                          |
|-----------------------------------------------|--------------------------|
| Existing Zoning                               | G-B                      |
| Maximum SF of Traditional Retail              | 15,000 sf                |
| Maximum SF of Pop-Up Retail                   | 2,000 sf                 |
| Streets                                       | Private                  |
| Water & Sewer Provider                        | City of Gainesville      |
| Sidewalks                                     | as shown on Concept Plan |
| Parking Ratio - Restaurant                    | 1/125*                   |
| Parking Ratio - Retail                        | 1/775*                   |
| *Subject to ITE guidelines for shared parking |                          |



REZONING SITE PLAN  
AVA SHALLOWFORD STATION  
LL 163 & 170  
974 JEFFERSON AVE  
GAINESVILLE, FL 32601  
TEL: 352.333.1100 FAX: 352.333.1101  
WWW.ROCHESTER-ASSOCIATES.COM

| NO. | DATE    | DESCRIPTION           |
|-----|---------|-----------------------|
| 1   | 8/29/21 | ISSUED FOR PERMITTING |
| 1   | 8/29/21 | ISSUED FOR PERMITTING |



## Existing Product Examples- Multi-Family

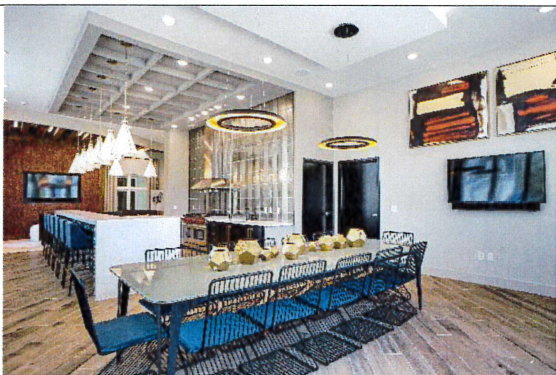
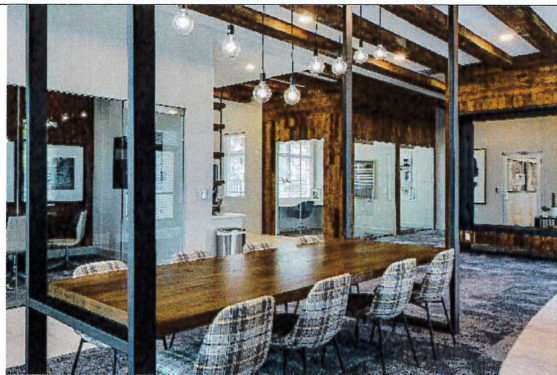




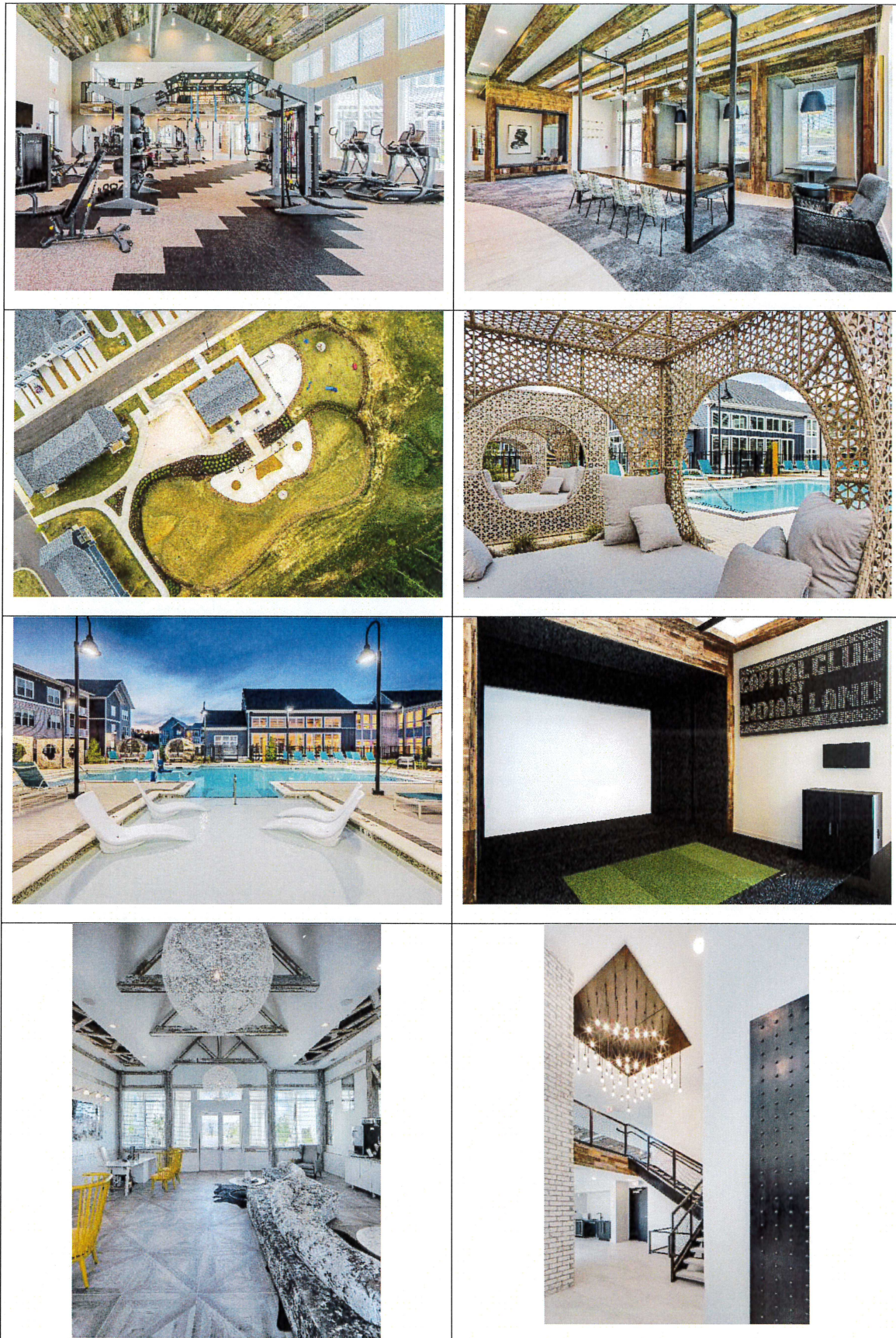




## Existing Product – Amenities









## Townhome and Single-Family Examples













# Traffic Impact Study

## Shallowford Road Mixed-Use Development Newnan, Georgia

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Keck & Wood Project No.  
210176.00

September 10, 2021

Prepared by:



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# 1. INTRODUCTION

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## 1.1. Study Area

The study area for this proposed project is located between Shallowford Road and Hudgins Street, and east of Skelton Road. Figure 1 presents the location of the project site and identifies the existing and proposed study intersections. There are currently six study intersections included within the scope of this study, and four of those intersections are expected to become driveways for the proposed development. The study intersections are listed below, with asterisks to represent intersections that are expected to become driveways for the proposed development.

1. **Skelton Road at U-Haul Driveway/Future Site Driveway #1\*\*\***
2. **Shallowford Road at Skelton Road**
3. **Shallowford Road at Albert Street/Commercial Driveway #1/Future Site Driveway #2\*\*\***
4. **Shallowford Road at Regions Bank Driveway/Commercial Driveway #2/Future Site Driveway #3\*\*\***
5. **Shallowford Road at Commercial Driveway #3/Future Site Driveway #4\*\*\***
6. **Pearl Nix Parkway at Shallowford Road**

## 1.2. Proposed Development

The proposed development will be positioned on approximately 25 total acres in Hall County. The development is proposed to consist of a 9,000 square foot of retail development, a 3,500 square foot fast-casual restaurant, 184 apartment units, 67 single-family rental units, and 85 townhome units. The proposed development will consist of four access points onto the surrounding roadways. In the northwestern quadrant, there is a full access driveway providing access to Skelton Road. Along Shallowford Road, there are three additional full access points. The proposed development is expected to be built in one stage and is expected to be built out in 2024. Currently, the proposed project site is occupied by a commercial development. The proposed site layout is provided in **Appendix A**.

## 1.3. Planned Transportation Improvements

A search for planned Georgia Department of Transportation (GDOT) projects in or near the study area was performed using the GDOT GeoPI web application (<http://www.dot.ga.gov/DS/Maps/geopi#>). Based on the results of that search, there were no projects found in the immediate vicinity of the study area.

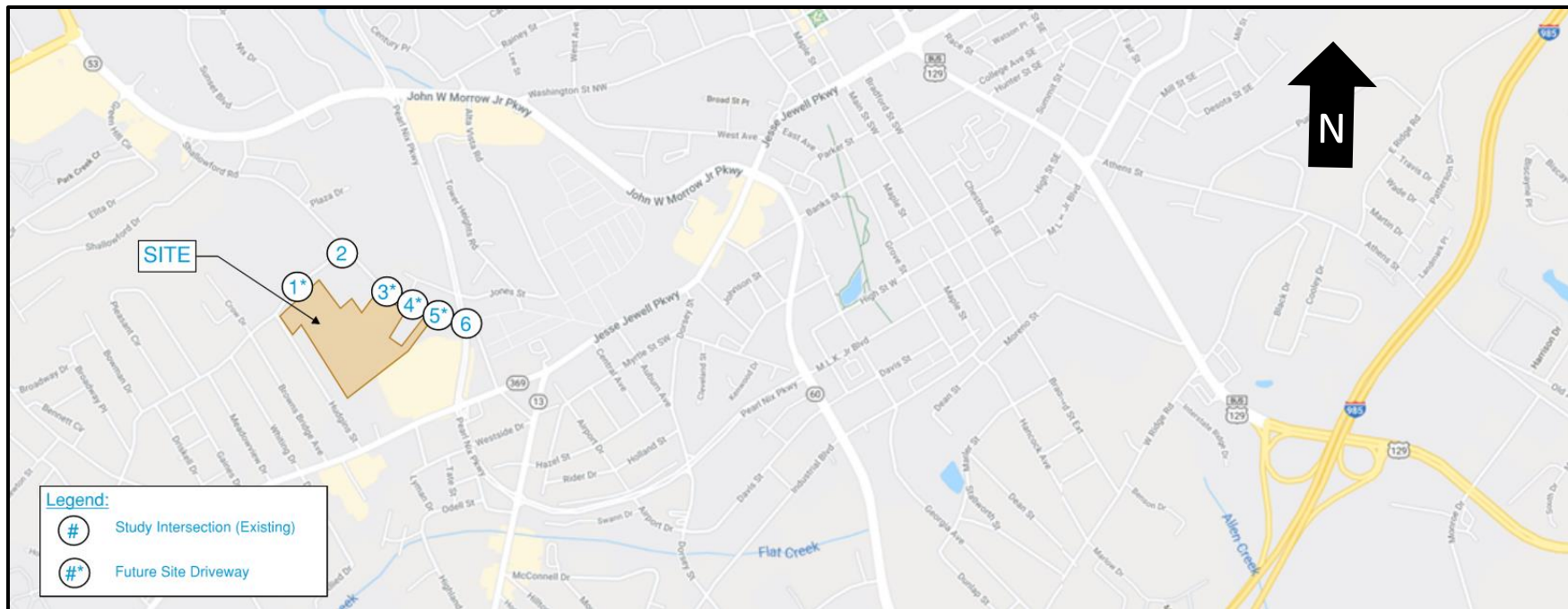


FIGURE 1 - OVERVIEW OF STUDY AREA



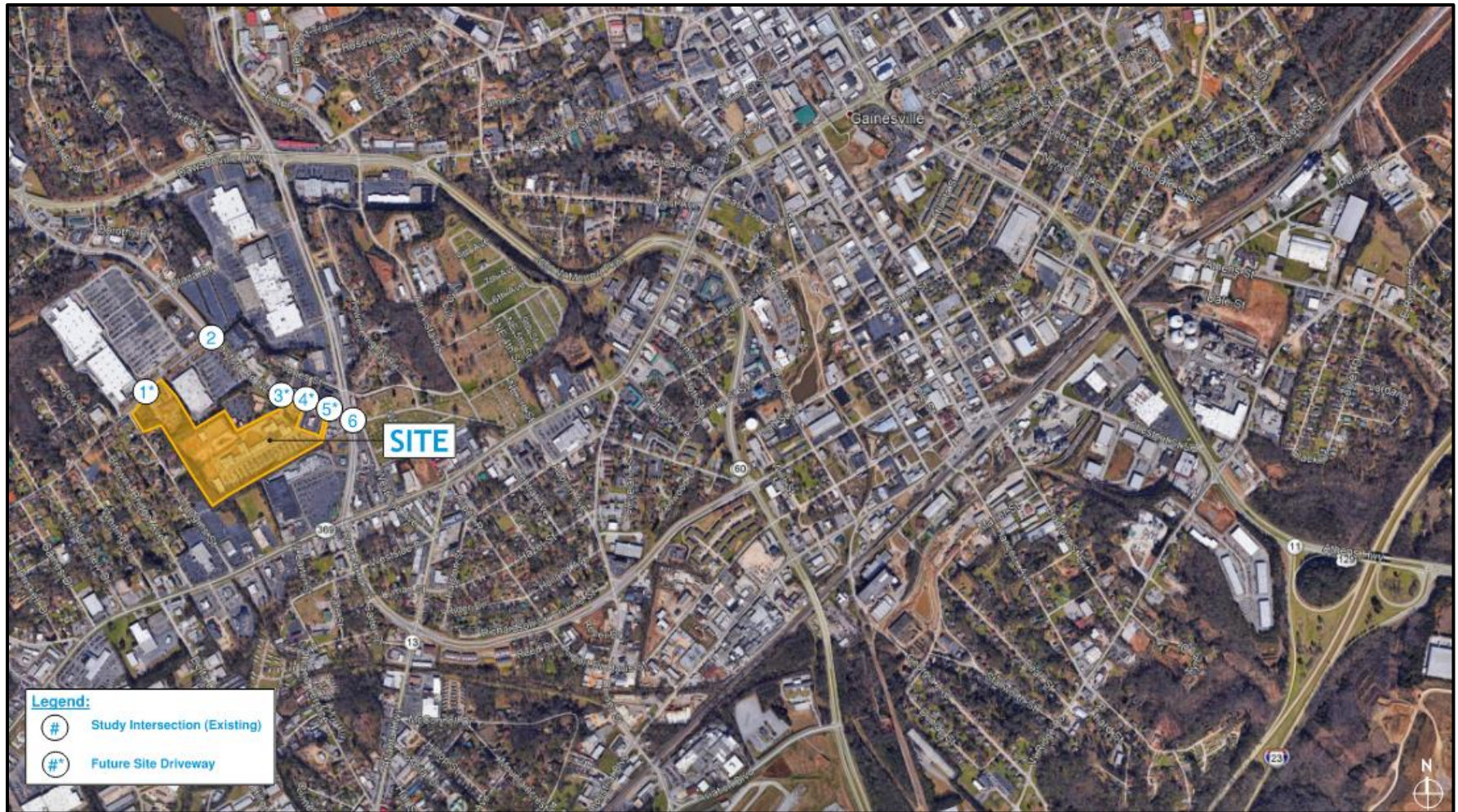


FIGURE 2 - AERIAL VIEW OF STUDY AREA

## 2. EXISTING CONDITIONS

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### 2.1. Roadways

**Pearl Nix Parkway** is a four-lane divided roadway running north-south that serves primarily commercial developments in the vicinity of the site. Pearl Nix Parkway begins at its intersection with SR 60/Queen City Parkway and continues through SR 53/Dawsonville Highway where it later drops to two-lanes and becomes Chestatee Road. It is classified as an urban minor arterial with a 35-mph speed limit in the vicinity of the site. Near the study area, there are pedestrian facilities to cross Pearl Nix Parkway along Shallowford Road; however, there are no bicycle or pedestrian facilities along the roadway.

**Shallowford Road** is a four-lane roadway, divided by a two-way left-turn lane, running east-west that serves primarily commercial developments in the vicinity of the site. Shallowford Road begins at its intersection with SR 53/Dawsonville Highway and continues east where it aligns with West End Avenue at its intersection with Pearl Nix Parkway. It is classified as an urban minor arterial with a 35-mph speed limit in the vicinity of the site. Near the study area, there are sidewalks along both sides of Shallowford Road. There are no bicycle facilities present along the roadway, however.

**Skelton Road** is a two-lane undivided roadway running north-south that serves a mixture of commercial and residential developments in the vicinity of the site. Skelton Road begins in the south at SR 369/Browns Bridge Road and continues north where it terminates at its intersection with Shallowford Road. The roadway segment is classified as an urban minor collector with a posted speed limit of 30 mph in the vicinity of the site. There are no bicycle or pedestrian facilities present within the study area.

### 2.2. Intersections

The following six intersections were identified to be studied (future site driveways marked with asterisks):

1. **Skelton Road at U-Haul Driveway/Future Site Driveway #1\*\*\***
2. **Shallowford Road at Skelton Road**
3. **Shallowford Road at Albert Street/Commercial Driveway #1/Future Site Driveway #2\*\*\***
4. **Shallowford Road at Regions Bank Driveway/Commercial Driveway #2/Future Site Driveway #3\*\*\***
5. **Shallowford Road at Commercial Driveway #3/Future Site Driveway #4\*\*\***
6. **Pearl Nix Parkway at Shallowford Road**

The existing lane geometries and intersection control types are presented in Figure 3.

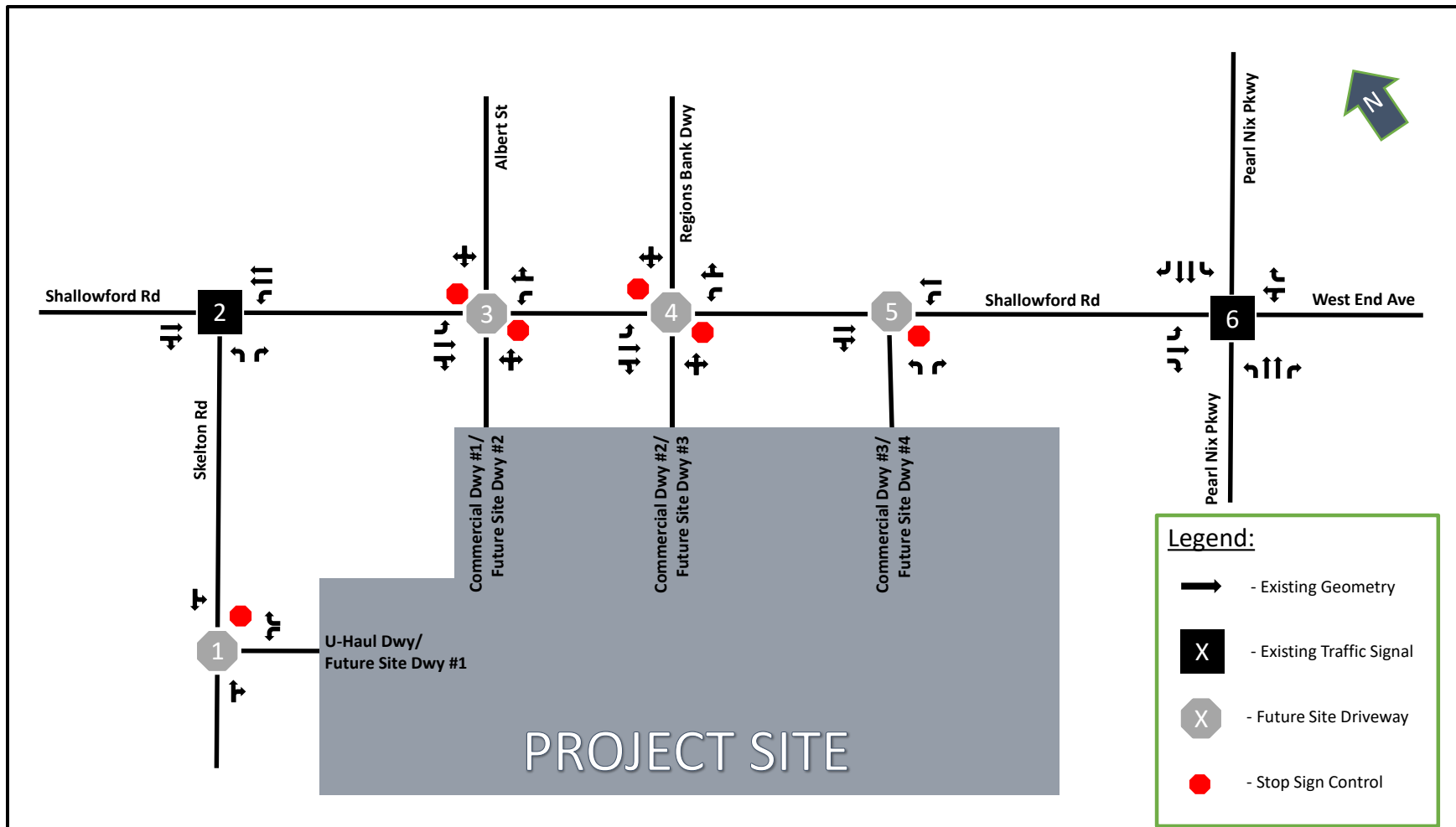


FIGURE 3 - EXISTING AND PROPOSED INTERSECTION GEOMETRIES



### 3. TRAFFIC PROJECTIONS

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#### 3.1. Existing Traffic Counts

The traffic data utilized for this project was collected on Wednesday, August 25, 2021. The count data includes weekday AM (7-9 AM) and PM (4-6 PM) peak period turning movement counts for each of the existing intersections. The following traffic counts were utilized:

- 4-Hour Turning Movement Count (TMC)
  - Skelton Road at U-Haul Driveway
  - Shallowford Road at Skelton Road
  - Shallowford Road at Albert Street/Commercial Driveway #1
  - Shallowford Road at Regions Bank Driveway/Commercial Driveway #2
  - Shallowford Road at Commercial Driveway #3
  - Pearl Nix Parkway at Shallowford Road

24-hour volume counts were also obtained for the following locations:

- Pearl Nix Parkway south of Shallowford Road
- Shallowford Road east of Skelton Road
- Skelton Road south of Shallowford Road

The Existing 2021 peak hour traffic information can be found in Figure 4. All traffic count data collected as part of this project can be found in **Appendix B**.

#### 3.2. COVID Traffic Check

Per the guidance of GDOT, any traffic counts obtained after March 2020 should have a COVID check performed. This COVID check compares pre-COVID volumes with post-COVID volumes to see if a correction factor needs to be applied to the traffic counts. The correction factor will try to align the post-COVID counts to be more in line with pre-COVID traffic volumes. The assumption is that traffic volumes have dropped post-COVID, however, it is anticipated that traffic volumes will eventually reach the same level they would have reached following a pre-COVID growth pattern.

The goal of this check is to make sure transportation projects are being planned for and built to the assumption that traffic volumes will recover to the level of pre-COVID volumes.

Our team performed this COVID check and determined that no COVID adjustment factor was needed. Please refer to **Appendix C** for these calculations.

#### 3.3. Future Background Traffic

A build-out year of 2024 was established for the project. To account for the growth over the next 3 years, an average annual growth rate was determined based on historical Average Annual Daily Traffic (AADT) counts recorded by nearby GDOT Count Stations. AADTs from the following stations were obtained from the Traffic Analysis and Data Application (TADA) website ([gdottrafficdata.drakewell.com](http://gdottrafficdata.drakewell.com)) to establish the growth rate:

- 0000139-0647; Shallowford Road, east of Skelton Road
- 0000139\_0709; Pearl Nix Parkway, north of Shallowford Road
- 0000139\_0707; Pearl Nix Parkway, south of Shallowford Road
- 0000139\_0188; Skelton Road, south of the proposed development

Both the 5-year and 15-year growth rates were calculated at each of the historical traffic count locations. The 5-year growth rate of the three locations averaged 1.3% while the 15-year growth rate averaged 2.5%. Overall, a 1.3% annual growth rate was used in this project. The growth rate calculations can be found in **Appendix D**. The 1.3% growth rate was applied to the Existing 2021 peak hour traffic for a period of three years to establish the Opening Year 2024 – Background traffic volumes. The Opening Year 2024 – Background peak hour traffic is shown in Figure 5.

### 3.4. Trip Generation

The traffic that would be generated by the proposed development was estimated using the Institute of Transportation Engineers (ITE) Trip Generation Manual (TGM) 10<sup>th</sup> Edition. The trips expected to be generated by this development were determined using ITE Land Use Code 820 – Shopping Center for the proposed retail, ITE Land Use Code 930 – Fast Casual Restaurant, ITE Land Use 221 – Multifamily Housing (Mid-Rise) for the apartment units, ITE Land Use Code 210 – Single-Family Detached Housing for the rental units, and ITE Land Use Code 220 – Multifamily Housing (Low-Rise) for the townhome units. The total number of project-generated trips was estimated for the typical weekday and the morning (AM) and evening (PM) peak hours.

### 3.5. Pass-by Trip Adjustment

Not all of the trips entering and exiting the development result in new traffic being added to the road system. A portion of the trips will be attracted into the site from the traffic streams that were already passing by on the adjacent streets. Pass-by trips can represent a significant portion of the trips entering and exiting a commercial site. There are data that can be used to quantify the magnitude of pass-by trips provided in ITE's Trip Generation Handbook.

The Trip Generation Handbook shows a weekday PM peak period pass-by rate for ITE Code 820 – Shopping Center of 34%. For ITE Code 930 – Fast Casual Restaurant, there is not currently a pass-by rate established in the Trip Generation Handbook. Therefore, a PM peak period pass-by rate of 43% was used to match ITE Code 932 – High Turnover Sit-Down Restaurant. The pass-by rates were checked to assure that the pass-by trips did not exceed 15% of the adjacent street volume.

Pass-by trips are always included in the driveway movements. Pass-by trips are subtracted from the through volumes passing a given site driveway.

Table 1 shows the application of the trip generation and the trip adjustment strategies for the Opening Year 2024 – With Project scenarios. The resulting trip projections are provided in terms of daily traffic and also for each of the peak periods.



TABLE 1 - TRIP GENERATION

| Category                       | Code | Size   | Unit  | Total | In    | Out   | Total | In  | Out | Total | In  | Out |
|--------------------------------|------|--------|-------|-------|-------|-------|-------|-----|-----|-------|-----|-----|
| Shopping Center                | 820  | 9.00   | ksf   | 340   | 170   | 170   | 27    | 15  | 12  | 38    | 19  | 19  |
| Internal Trips                 |      |        |       | 134   | 85    | 49    | 3     | 1   | 2   | 30    | 14  | 16  |
| External Trips                 |      |        |       | 206   | 85    | 121   | 24    | 14  | 10  | 8     | 5   | 3   |
| Pass-by Trips                  |      | 34% PM |       | 70    | 29    | 41    |       |     |     | 3     | 2   | 1   |
| New Trips                      |      |        |       | 136   | 56    | 80    | 24    | 14  | 10  | 5     | 3   | 2   |
| Fast Casual Restaurant         | 930  | 3.50   | ksf   | 1,103 | 551   | 552   | 127   | 79  | 48  | 153   | 70  | 83  |
| Internal Trips                 |      |        |       | 176   | 77    | 99    | 22    | 19  | 3   | 34    | 10  | 24  |
| External Trips                 |      |        |       | 927   | 474   | 453   | 105   | 60  | 45  | 119   | 60  | 59  |
| Pass-by Trips                  |      | 43% PM |       | 399   | 204   | 195   |       |     |     | 51    | 26  | 25  |
| New Trips                      |      |        |       | 528   | 270   | 258   | 105   | 60  | 45  | 68    | 34  | 34  |
| Multifamily Housing (Mid-Rise) | 221  | 184    | Units | 1,001 | 500   | 501   | 59    | 16  | 43  | 75    | 45  | 30  |
| Internal Trips                 |      |        |       | 185   | 80    | 105   | 10    | 1   | 9   | 20    | 12  | 8   |
| External Trips                 |      |        |       | 816   | 420   | 396   | 49    | 15  | 34  | 55    | 33  | 22  |
| Pass-by Trips                  |      |        |       |       |       |       |       |     |     |       |     |     |
| New Trips                      |      |        |       | 816   | 420   | 396   | 49    | 15  | 34  | 55    | 33  | 22  |
| Single-Family Detached Housing | 210  | 67     | Units | 632   | 316   | 316   | 51    | 13  | 38  | 67    | 43  | 24  |
| Internal Trips                 |      |        |       | 117   | 66    | 51    | 9     | 1   | 8   | 19    | 12  | 7   |
| External Trips                 |      |        |       | 515   | 250   | 265   | 42    | 12  | 30  | 48    | 31  | 17  |
| Pass-by Trips                  |      |        |       |       |       |       |       |     |     |       |     |     |
| New Trips                      |      |        |       | 515   | 250   | 265   | 42    | 12  | 30  | 48    | 31  | 17  |
| Multifamily Housing (Low-Rise) | 220  | 85     | Units | 602   | 301   | 301   | 49    | 14  | 35  | 58    | 34  | 24  |
| Internal Trips                 |      |        |       |       |       |       |       |     |     |       |     |     |
| External Trips                 |      |        |       | 602   | 301   | 301   | 49    | 14  | 35  | 58    | 34  | 24  |
| Pass-by Trips                  |      |        |       |       |       |       |       |     |     |       |     |     |
| New Trips                      |      |        |       | 602   | 301   | 301   | 49    | 14  | 35  | 58    | 34  | 24  |
| Total Trips                    |      |        |       | 3,678 | 1,838 | 1,840 | 313   | 137 | 176 | 391   | 211 | 180 |
| Total Internal Trips           |      |        |       | 612   | 308   | 304   | 44    | 22  | 22  | 103   | 48  | 55  |
| Total External Trips           |      |        |       | 3,066 | 1,530 | 1,536 | 269   | 115 | 154 | 288   | 163 | 125 |
| Total Pass-by Trips            |      |        |       | 469   | 233   | 236   |       |     |     | 54    | 28  | 26  |
| Total New Trips                |      |        |       | 2,597 | 1,297 | 1,300 | 269   | 115 | 154 | 234   | 135 | 99  |

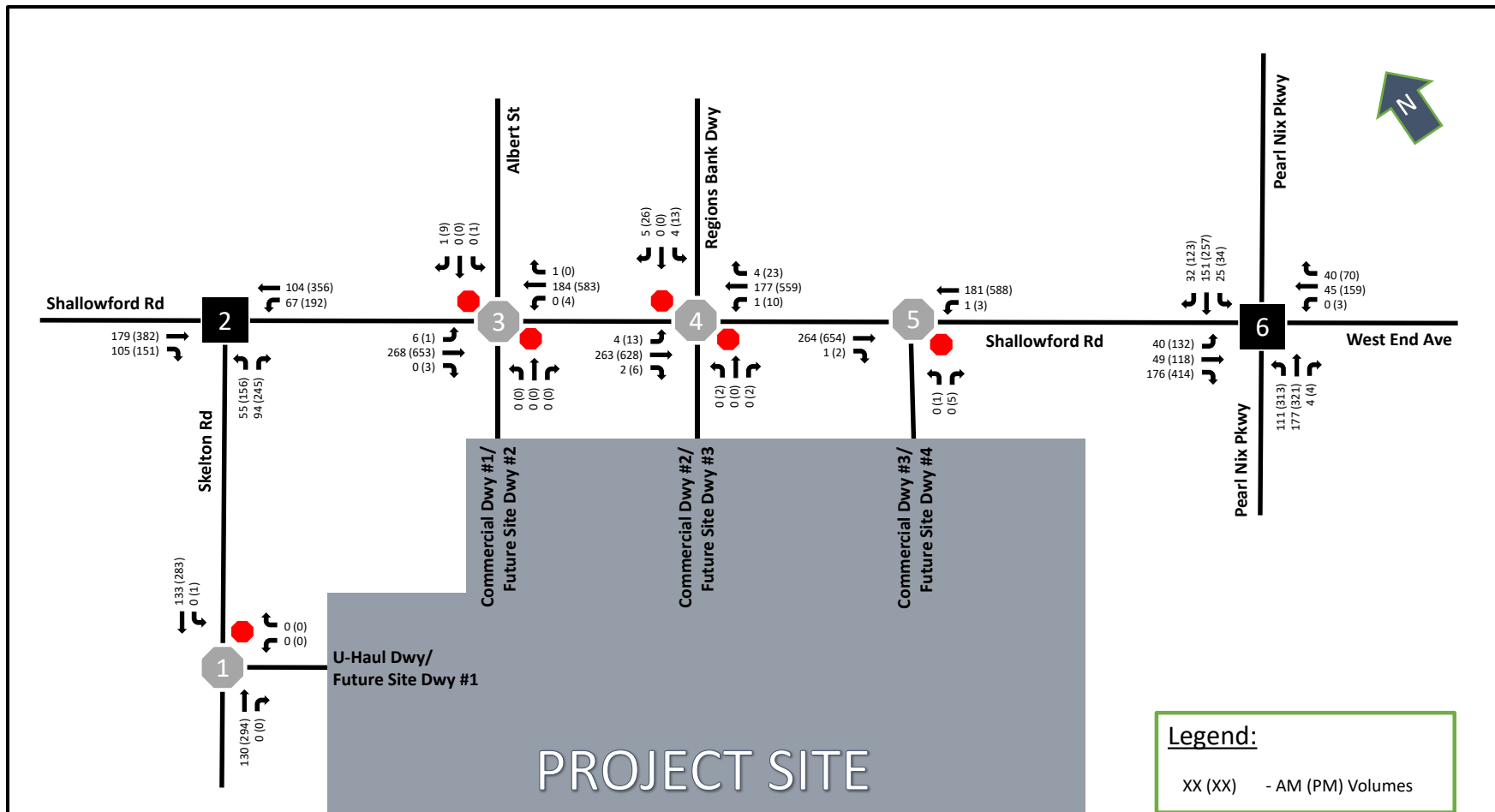


FIGURE 4 - EXISTING 2021 - PEAK HOUR TRAFFIC

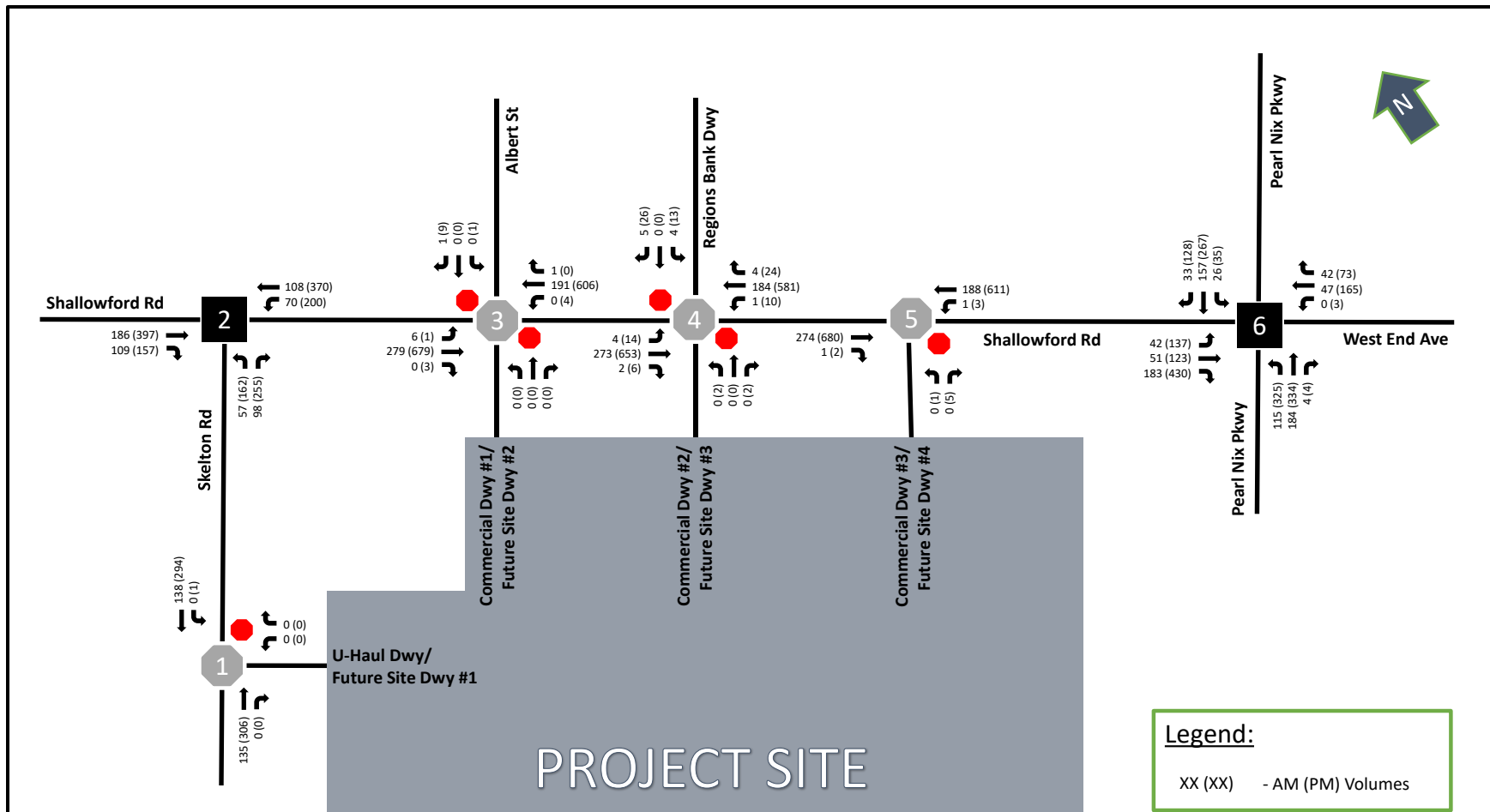


FIGURE 5 - OPENING YEAR 2024 - BACKGROUND - PEAK HOUR TRAFFIC

### 3.6. Distribution of Project-Generated Trips

The project-generated trips were distributed across the surrounding roadway network based on the distribution of existing traffic in each peak hour. New trips were distributed to all four cardinal directions via Shallowford Road, Pearl Nix Parkway, Skelton Road, and West End Avenue. The proposed trip distribution is shown in Figure 6.

### 3.7. Assignment of Project-Generated Trips

The number of new and pass-by trips at the study intersections were determined using the trip generation and distribution already discussed.

Figure 7 shows the new Peak Hour Trip Adjustments, and Figure 8 shows the Opening Year 2024 – With Project peak hour traffic volumes.

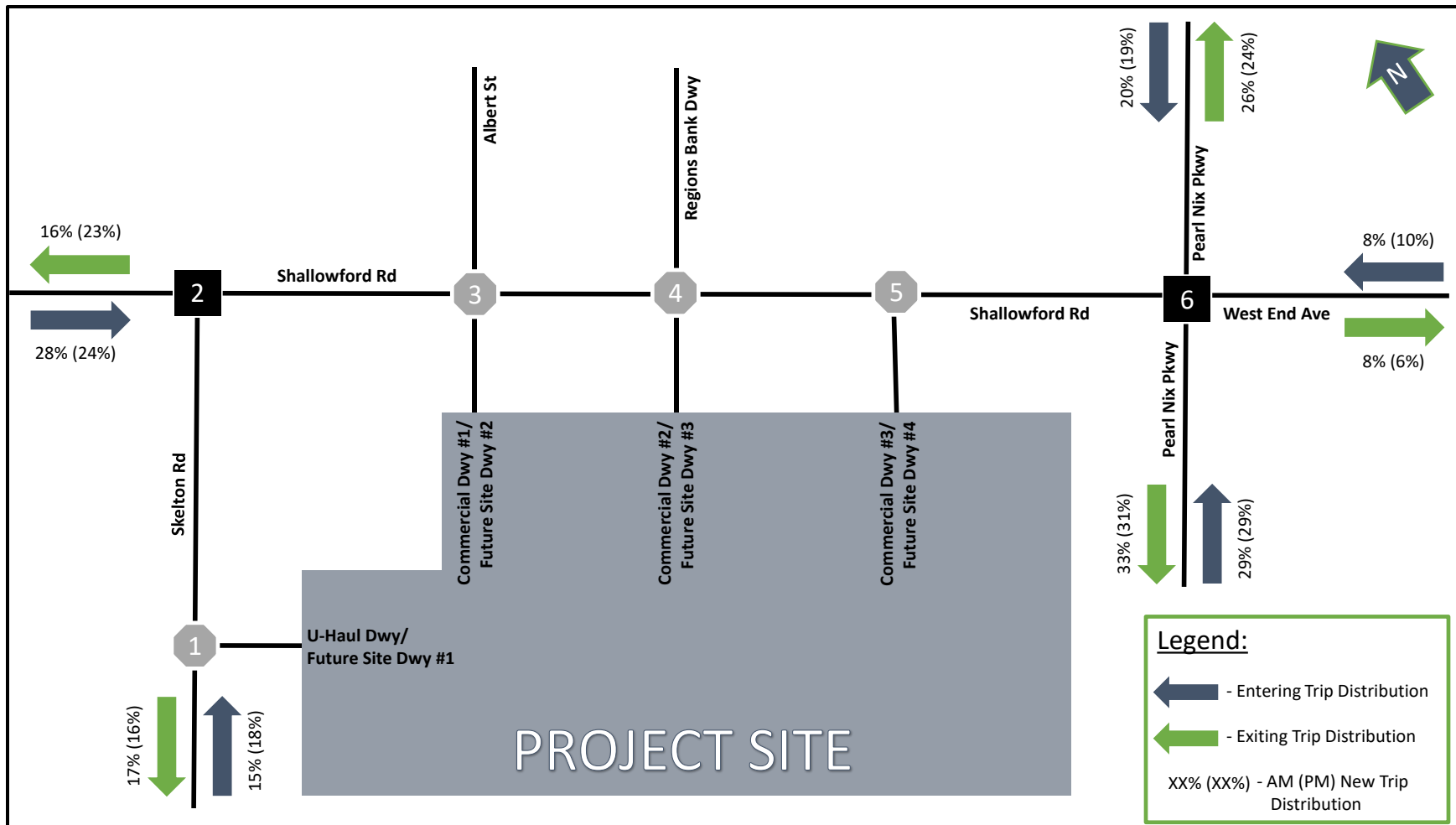


FIGURE 6 - NEW TRIP DISTRIBUTION



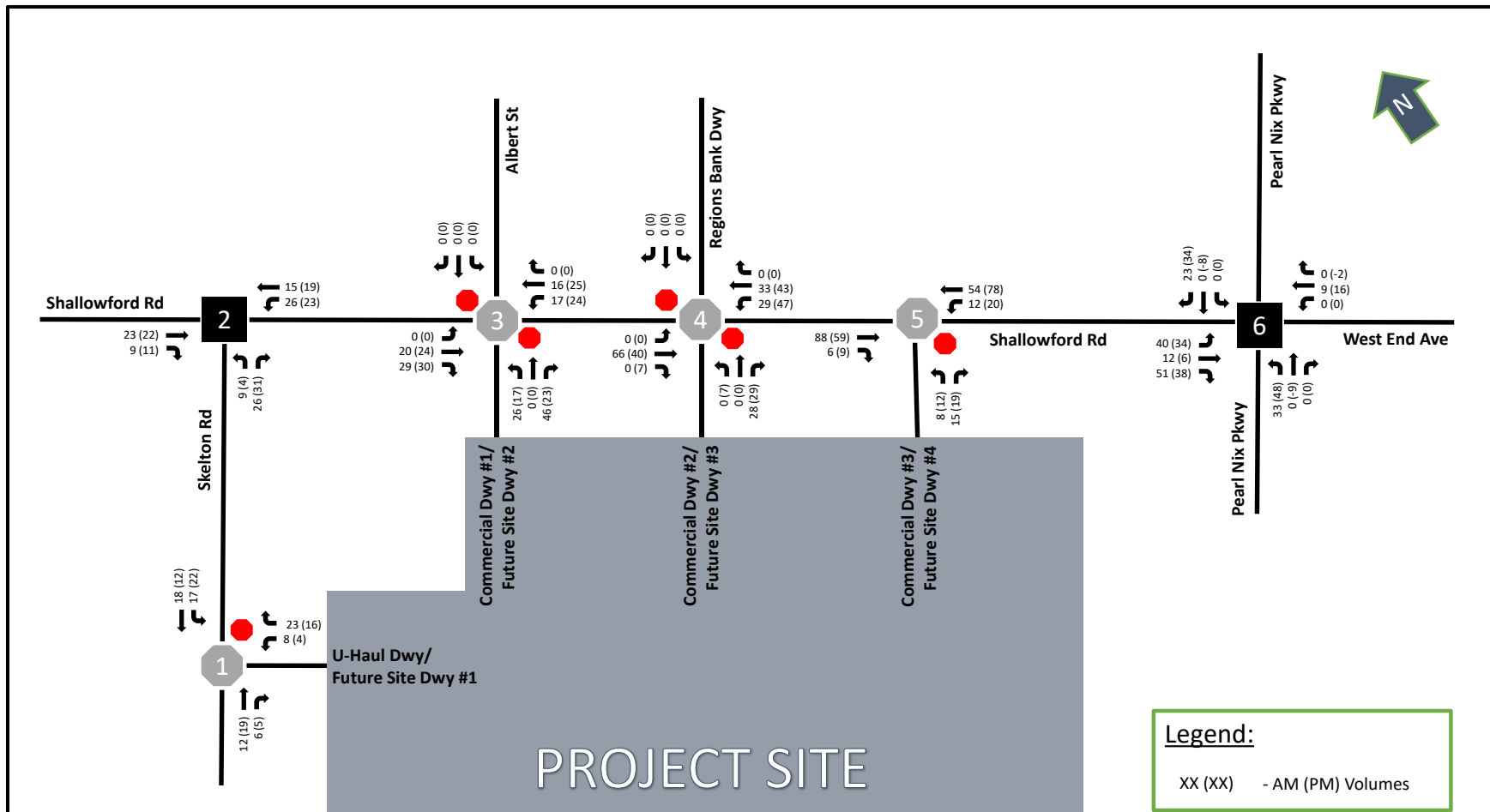


FIGURE 7 - PEAK HOUR TRIP ADJUSTMENTS

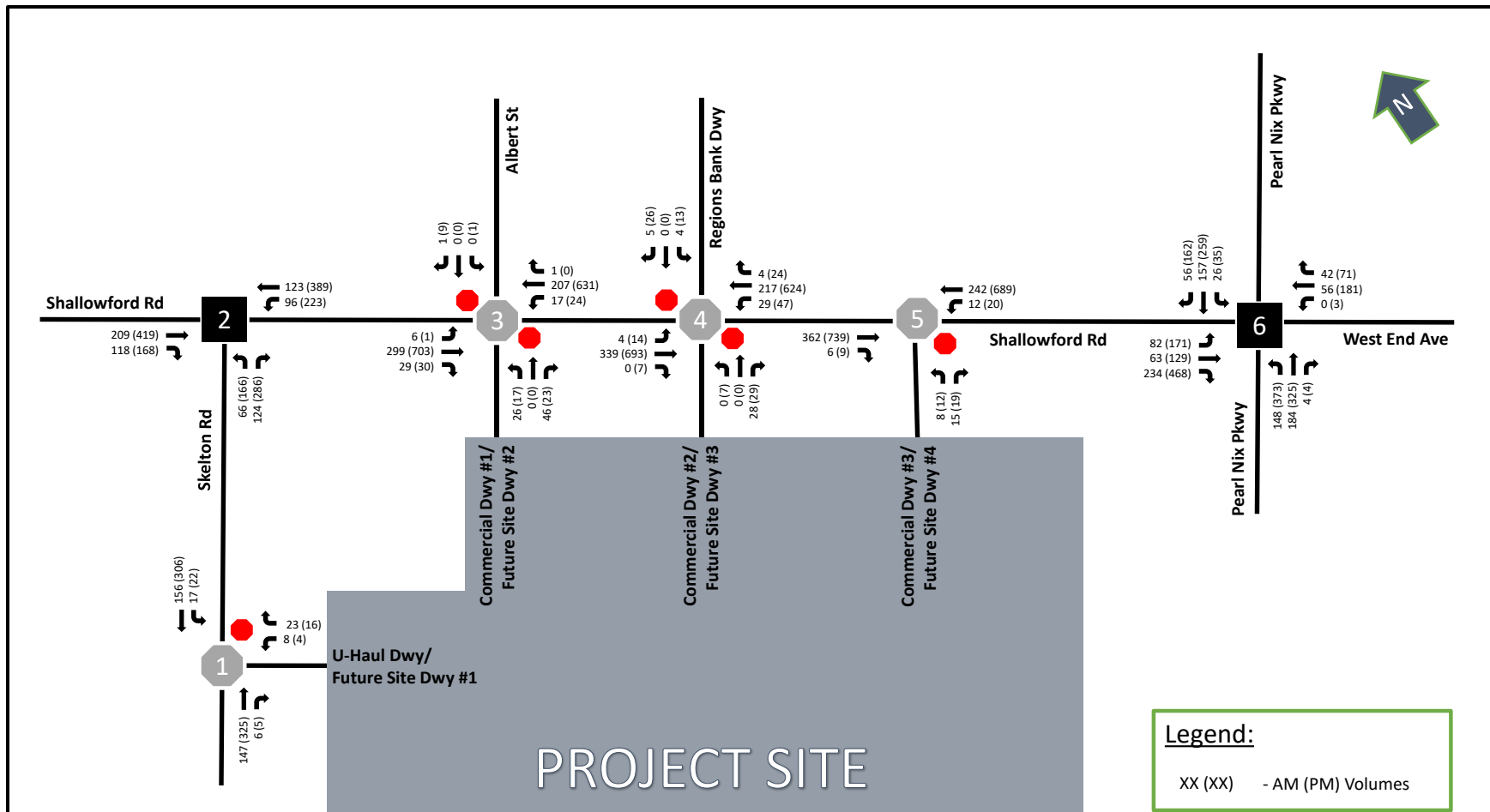


FIGURE 8 - OPENING YEAR 2024 - WITH PROJECT - PEAK HOUR TRAFFIC

## 4. DATA ANALYSIS

### 4.1. Level of Service Criteria

In order to quantify the impacts of additional traffic and to determine any needed roadway and/or operational improvements, a capacity analysis was performed for the Existing 2021, Opening Year 2024 – Background, and Opening Year 2024 – With Project peak hour conditions based on the methodology outlined in the *Highway Capacity Manual (HCM)*. There are various computer programs available that implement the *HCM* methodology. For this project, Synchro 11 was used to analyze the signalized intersections and HCS7 was used to analyze the unsignalized intersections.

HCM defines level of service (LOS) in terms of the amount of control delay, including initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The LOS categories range from A to F, with different thresholds specified according to the type of stop control at the intersection. The LOS criteria for unsignalized, signalized, and roundabout intersections are listed in Table 2.

TABLE 2 - LEVEL OF SERVICE CRITERIA

| Level of Service (LOS) | Unsignalized Control Delay per Vehicle (sec) | Signalized or Roundabout Control Delay per Vehicle (sec) |
|------------------------|----------------------------------------------|----------------------------------------------------------|
| A                      | $\leq 10$                                    | $\leq 10$                                                |
| B                      | $> 10$ and $\leq 15$                         | $> 10$ and $\leq 20$                                     |
| C                      | $> 15$ and $\leq 25$                         | $> 20$ and $\leq 35$                                     |
| D                      | $> 25$ and $\leq 35$                         | $> 35$ and $\leq 55$                                     |
| E                      | $> 35$ and $\leq 50$                         | $> 55$ and $\leq 80$                                     |
| F                      | $> 50$                                       | $> 80$                                                   |

Rural, sparsely developed areas have a minimum LOS requirement of C based on rural residents' expectation for relatively uncongested conditions in combination with design flexibility associated with lower right of way costs. The minimum LOS for urban areas is D, reflecting the greater acceptance of delay and congestion by urban residents. Additionally, the increased density of developments makes right of way costs much higher in urban areas. The study area is located in an urban setting; therefore, the minimum requirement is LOS D.

## 4.2. Existing Intersection Capacity Analysis

A capacity analysis was performed to evaluate the AM and PM peak hour periods for the Existing 2021 conditions. The results of the analysis are listed in Table 3. Synchro and HCS reports are included in **Appendix E**.

**TABLE 3 - EXISTING 2021 - CAPACITY ANALYSIS RESULTS**

| No. | Intersection                                      | Intersection Control | Movement | Existing 2021 |         |         |         |
|-----|---------------------------------------------------|----------------------|----------|---------------|---------|---------|---------|
|     |                                                   |                      |          | AM Peak       |         | PM Peak |         |
|     |                                                   |                      |          | LOS           | sec/veh | LOS     | sec/veh |
| 1   | Skelton Road at U-Haul Driveway                   | Side Street Stop     | WB       | A             | 0.0     | A       | 0.0     |
|     |                                                   |                      | NB       | A             | 0.0     | A       | 0.0     |
|     |                                                   |                      | SB       | A             | 0.0     | A       | 0.0     |
| 2   | Shallowford Road at Skelton Road                  | Signalized           | Overall  | B             | 14.8    | B       | 18.0    |
| 3   | Shallowford Road at Albert Street                 | Side Street Stop     | EBL      | A             | 7.7     | A       | 8.7     |
|     |                                                   |                      | EBT+R    | A             | 0.0     | A       | 0.0     |
|     |                                                   |                      | WBL      | A             | 7.9     | A       | 9.0     |
|     |                                                   |                      | WBT+R    | A             | 0.0     | A       | 0.1     |
|     |                                                   |                      | NB       | A             | 0.0     | A       | 0.0     |
|     |                                                   |                      | SB       | A             | 9.4     | B       | 13.6    |
| 4   | Shallowford Road at Regions Bank Driveway         | Side Street Stop     | EBL      | A             | 7.7     | A       | 9.0     |
|     |                                                   |                      | EBT+R    | A             | 0.1     | A       | 0.2     |
|     |                                                   |                      | WBL      | A             | 7.9     | A       | 9.3     |
|     |                                                   |                      | WBT+R    | A             | 0.0     | A       | 0.2     |
|     |                                                   |                      | NB       | A             | 0.0     | D       | 31.5    |
|     |                                                   |                      | SB       | B             | 10.4    | C       | 20.0    |
| 5   | Shallowford Road at Strip Mall Access/Driveway #3 | Side Street Stop     | EBT+R    | A             | 0.0     | A       | 0.0     |
|     |                                                   |                      | WBL      | A             | 7.9     | A       | 9.3     |
|     |                                                   |                      | WB       | A             | 0.0     | A       | 0.0     |
|     |                                                   |                      | NBL      | B             | 12.5    | E       | 35.9    |
|     |                                                   |                      | NBR      | A             | 9.2     | B       | 10.9    |
| 6   | Pearl Nix Parkway at Shallowford Road             | Signalized           | Overall  | B             | 19.6    | C       | 26.7    |

The following inadequate operations were observed for the Existing 2021 conditions:

- Shallowford Road at Commercial Driveway #3 (unsignalized)
  - The northbound left-turn movement is currently exhibiting LOS E in the PM Peak period.

## 4.3. Opening Year Intersection Capacity Analysis

A capacity analysis was performed to evaluate the AM and PM Peak periods in Opening Year 2024. For the purposes of this study, the following assumptions were made:

- Opening Year 2024 – Background
  - This scenario assumes that the existing roadway and lane assignments are expected to be the same in year 2024.
- Opening Year 2024 – With Project
  - This scenario assumes the same roadway network and lane assignments as in the Opening Year 2024 Background scenario. The proposed driveways are detailed below:
    - Skelton Road at Site Driveway #1 is proposed as full access and will utilize the existing lane assignments along Skelton Road. The site driveway will be a shared left+through+right lane exiting the site with a single lane entering.

- Shallowford Road at Albert Street/Site Driveway #2 is proposed as full access and will utilize the existing lane assignments along Shallowford Road. The site driveway will be a shared left+through+right lane exiting the site with a single lane entering.
- Shallowford Road at Regions Bank Driveway/Site Driveway #3 is proposed as full access and will utilize the existing lane assignments along Shallowford Road. The site driveway will be a shared left+through+right lane exiting the site with a single lane entering.
- Shallowford Road at Site Driveway #4 is proposed as full access and will utilize the existing lane assignments along Shallowford Road. The site driveway will be a shared left+right lane exiting the site with a single lane entering.

The results of the Opening Year 2024 analysis are shown in Table 4. Synchro and HCS reports for the Opening Year 2024 analysis are included in **Appendix F**.

**TABLE 4 - OPENING YEAR 2024 - CAPACITY ANALYSIS RESULTS**

| No. | Intersection                                                           | Intersection Control | Movement | Background 2024 AM |         | With Project 2024 AM |         | Background 2024 PM |         | With Project 2024 PM |         |
|-----|------------------------------------------------------------------------|----------------------|----------|--------------------|---------|----------------------|---------|--------------------|---------|----------------------|---------|
|     |                                                                        |                      |          | LOS                | sec/veh | LOS                  | sec/veh | LOS                | sec/veh | LOS                  | sec/veh |
| 1   | Skelton Road at U-Haul Driveway/<br>Future Site Driveway #1            | Side Street Stop     | WB       | A                  | 0.0     | A                    | 9.8     | A                  | 0.0     | B                    | 11.7    |
|     |                                                                        |                      | NB       | A                  | 0.0     | A                    | 0.0     | A                  | 0.0     | A                    | 0.0     |
|     |                                                                        |                      | SB       | A                  | 0.0     | A                    | 0.9     | A                  | 0.0     | A                    | 0.8     |
| 2   | Shallowford Road at Skelton Road                                       | Signalized           | Overall  | B                  | 14.9    | B                    | 15.5    | B                  | 18.1    | B                    | 18.4    |
| 3   | Shallowford Road at Albert Street/<br>Future Site Driveway #2          | Side Street Stop     | EBL      | A                  | 7.7     | A                    | 7.7     | A                  | 8.8     | A                    | 8.9     |
|     |                                                                        |                      | EBT+R    | A                  | 0.2     | A                    | 0.1     | A                  | 0.0     | A                    | 0.0     |
|     |                                                                        |                      | WBL      | A                  | 7.9     | A                    | 8.1     | A                  | 9.1     | A                    | 9.4     |
|     |                                                                        |                      | WBT+R    | A                  | 0.0     | A                    | 0.6     | A                  | 0.1     | A                    | 0.3     |
|     |                                                                        |                      | NB       | A                  | 0.0     | B                    | 12.9    | A                  | 0.0     | D                    | 33.8    |
|     |                                                                        |                      | SB       | A                  | 9.4     | A                    | 9.5     | B                  | 13.9    | B                    | 14.6    |
| 4   | Shallowford Road at Regions Bank Driveway/<br>Future Site Driveway #3  | Side Street Stop     | EBL      | A                  | 7.7     | A                    | 7.8     | A                  | 9.2     | A                    | 9.3     |
|     |                                                                        |                      | EBT+R    | A                  | 0.1     | A                    | 0.1     | A                  | 0.2     | A                    | 0.2     |
|     |                                                                        |                      | WBL      | A                  | 7.9     | A                    | 8.2     | A                  | 9.4     | A                    | 9.8     |
|     |                                                                        |                      | WBT+R    | A                  | 0.0     | A                    | 1.0     | A                  | 0.2     | A                    | 0.7     |
|     |                                                                        |                      | NB       | A                  | 0.0     | A                    | 9.6     | D                  | 34.3    | D                    | 29.6    |
|     |                                                                        |                      | SB       | B                  | 10.5    | B                    | 11.7    | C                  | 21.1    | D                    | 27.2    |
| 5   | Shallowford Road at Commercial Driveway #3/<br>Future Site Driveway #4 | Side Street Stop     | EBT+R    | A                  | 0.0     | A                    | 0.0     | A                  | 0.0     | A                    | 0.0     |
|     |                                                                        |                      | WBL      | A                  | 7.9     | A                    | 8.2     | A                  | 9.4     | A                    | 9.9     |
|     |                                                                        |                      | WB       | A                  | 0.0     | A                    | 0.4     | A                  | 0.0     | A                    | 0.3     |
|     |                                                                        |                      | NBL      | B                  | 12.7    | --                   | --      | E                  | 38.8    | --                   | --      |
|     |                                                                        |                      | NBR      | A                  | 9.2     | --                   | --      | B                  | 11.1    | --                   | --      |
|     |                                                                        |                      | NB       | --                 | --      | B                    | 11.9    | --                 | --      | D                    | 33.4    |
| 6   | Pearl Nix Parkway at Shallowford Road                                  | Signalized           | Overall  | B                  | 19.8    | C                    | 21.0    | C                  | 27.5    | C                    | 29.8    |

The following inadequate operations were observed for the Opening Year 2024 conditions:

- Shallowford Road at Commercial Driveway #3 (unsignalized)
  - The northbound left-turn movement is expected to exhibit unsatisfactory LOS in the Background scenario for the PM peak period. However, it should be noted that the overall northbound approach is expected to operate with adequate LOS during this scenario. For the With Project scenario, Future Site Driveway #4 becomes a single lane approach and is expected to operate adequately with LOS D.



#### 4.4. Back of Queue Analysis

A Back of Queue (BOQ) analysis was used to determine the storage needs for Opening Year 2024. The 95<sup>th</sup> percentile BOQ length was calculated for specific movements at each intersection. The queue is expected to be the reported length or shorter 95 percent of the time. The BOQ results were taken from the capacity analysis reports output by Synchro and HCS for each study intersection (refer to **Appendix F** for those printouts). Table 5 lists the BOQ lengths for each peak hour of the Opening Year 2024 – Background and With Project scenarios.

**TABLE 5 - OPENING YEAR 2024 - BACK OF QUEUE RESULTS**

| No. | Intersection                                                        | Intersection Control | Movement | Existing Full Length Storage (feet) | 95th Percentile Back of Queue (feet) |              |            |              |
|-----|---------------------------------------------------------------------|----------------------|----------|-------------------------------------|--------------------------------------|--------------|------------|--------------|
|     |                                                                     |                      |          |                                     | Background                           | With Project | Background | With Project |
|     |                                                                     |                      |          |                                     | AM Peak                              |              | PM Peak    |              |
| 1   | Skelton Road at U-Haul Driveway/ Future Site Driveway #1            | Side Street Stop     | WB       | N/A                                 | 0                                    | 25           | 0          | 25           |
|     |                                                                     |                      | NB       | N/A                                 | 0                                    | 0            | 0          | 0            |
|     |                                                                     |                      | SB       | N/A                                 | 0                                    | 0            | 0          | 25           |
| 2   | Shallowford Road at Skelton Road                                    | Side Street Stop     | EBT+R    | N/A                                 | 44                                   | 55           | 150        | 167          |
|     |                                                                     |                      | WBL      | 100'                                | 25                                   | 30           | 77         | 87           |
|     |                                                                     |                      | WBT+R    | N/A                                 | 25                                   | 25           | 65         | 68           |
|     |                                                                     |                      | NBL      | N/A                                 | 83                                   | 92           | 190        | 195          |
|     |                                                                     |                      | NBR      | 250'                                | 36                                   | 38           | 56         | 76           |
| 3   | Shallowford Road at Albert Street/ Future Site Driveway #2          | Side Street Stop     | EBL      | TWTL                                | 0                                    | 0            | 0          | 0            |
|     |                                                                     |                      | EBT+R    | N/A                                 | 0                                    | 0            | 0          | 0            |
|     |                                                                     |                      | WBL      | 100'                                | 0                                    | 25           | 0          | 25           |
|     |                                                                     |                      | WBT+R    | N/A                                 | 0                                    | 0            | 0          | 0            |
|     |                                                                     |                      | NB       | N/A                                 | 0                                    | 25           | 0          | 25           |
|     |                                                                     |                      | SB       | N/A                                 | 0                                    | 0            | 25         | 25           |
| 4   | Shallowford Road at Regions Bank Driveway/ Future Site Driveway #3  | Side Street Stop     | EBL      | TWTL                                | 0                                    | 0            | 25         | 25           |
|     |                                                                     |                      | EBT+R    | N/A                                 | 0                                    | 0            | 0          | 0            |
|     |                                                                     |                      | WBL      | TWTL                                | 0                                    | 25           | 0          | 25           |
|     |                                                                     |                      | WBT+R    | N/A                                 | 0                                    | 0            | 0          | 0            |
|     |                                                                     |                      | NB       | N/A                                 | 0                                    | 25           | 25         | 25           |
|     |                                                                     |                      | SB       | N/A                                 | 0                                    | 25           | 25         | 25           |
| 5   | Shallowford Road at Commercial Driveway #3/ Future Site Driveway #4 | Side Street Stop     | EBT+R    | N/A                                 | 0                                    | 0            | 0          | 0            |
|     |                                                                     |                      | WBL      | TWTL                                | 0                                    | 0            | 0          | 25           |
|     |                                                                     |                      | WB       | N/A                                 | 0                                    | 0            | 0          | 0            |
|     |                                                                     |                      | NBL      | N/A                                 | 0                                    | --           | 0          | --           |
|     |                                                                     |                      | NBR      | 50'                                 | 0                                    | --           | 0          | --           |
|     |                                                                     |                      | NB       | N/A                                 | --                                   | 25           | --         | 25           |
| 6   | Pearl Nix Parkway at Shallowford Road at                            | Side Street Stop     | EBL      | 80'                                 | 39                                   | 70           | 144        | 204          |
|     |                                                                     |                      | EBT      | N/A                                 | 46                                   | 58           | 132        | 145          |
|     |                                                                     |                      | EBR      | N/A                                 | 25                                   | 25           | 111        | 126          |
|     |                                                                     |                      | WBL+T    | N/A                                 | 56                                   | 67           | 250        | 298          |
|     |                                                                     |                      | WBR      | 90'                                 | 0                                    | 0            | 0          | 0            |
|     |                                                                     |                      | NBL      | 430'                                | 56                                   | 72           | 152        | 176          |
|     |                                                                     |                      | NBT      | N/A                                 | 60                                   | 61           | 98         | 96           |
|     |                                                                     |                      | NBR      | 225'                                | 0                                    | 0            | 0          | 0            |
|     |                                                                     |                      | SBL      | 145'                                | 37                                   | 40           | 60         | 62           |
|     |                                                                     |                      | SBT      | N/A                                 | 69                                   | 73           | 138        | 141          |
|     |                                                                     |                      | SBR      | 250'                                | 0                                    | 0            | 0          | 25           |

The BOQ results indicate the following:

- Pearl Nix Parkway at Shallowford Road (signalized)
  - The eastbound left-turn queue off of Shallowford Road is expected to be 144' for the Background PM scenario and 204' for the With Project scenario. Currently, the striped left-turn lane is only 80'; however, the left-turn lane could be extended by utilizing the existing TWLTL along Shallowford Road. Additionally, the eastbound left-turn movement is not currently receiving a lot of green time in the existing timing parameters. It is expected that small increments of green time for the eastbound left-turn movement will reduce the queue lengths currently shown in the table above.

## 5. CONCLUSIONS

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The proposed development will be positioned on approximately 25 total acres in Hall County. The development is proposed to consist of a 9,000 square foot of retail development, a 3,500 square foot fast-casual restaurant, 184 apartment units, 67 single-family rental units, and 85 townhome units. The proposed development will consist of four access points onto the surrounding roadways. In the northwestern quadrant, there is a full access driveway providing access to Skelton Road while the remaining three driveways provide access to Shallowford Road. The proposed development is expected to be built in one stage and is expected to be built out in 2024.

The proposed project is expected to generate a total of 2,597 new trips on a typical weekday. A total of 269 new trips would be generated during the AM Peak hour, and 234 new trips would be generated during the PM peak hour. A portion of the total trips for the proposed development are expected to be comprised of internal trips between land uses. Based on the land uses within the development, a total of 612 trips are expected on a typical weekday. A total of 44 internal trips would be generated during the AM peak hour, and 103 internal trips would be generated during the PM peak hour. The proposed project is expected to generate a total of 469 pass-by trips on a typical weekday. A total of 54 pass-by trips are expected to be generated during the PM peak hour. Based on the expected land uses within the development, there are currently no pass-by trips expected for the AM peak hour.

In the Existing Year 2021 capacity analysis, the stop-controlled intersection at Shallowford Road and Commercial Driveway #3 exhibited unsatisfactory delay for the northbound left-turn movement during the PM peak period.

In the Opening Year 2024 – Background capacity analysis, the stop-controlled intersection at Shallowford Road and Commercial Driveway #3 continues to experience unsatisfactory delay during the PM peak period. The northbound left-turn movement is expected to operate with LOS E during this period.

In the Opening Year 2024 – Background back of queue analysis, one intersection is expected to have queues that extend beyond the existing storage bay. At the intersection of Pearl Nix Parkway and Shallowford Road, the eastbound left-turn queue is expected to extend beyond the existing storage bay during the PM peak period.

In the Opening Year 2024 – With Project capacity analysis, all intersections are expected to operate adequately during both peak hours.

In the Opening Year 2024 – With Project back of queue analysis, one intersection is expected to have queues that extend beyond the existing storage bay. At the intersection of Pearl Nix Parkway and Shallowford Road, the eastbound left-turn queue is expected to extend beyond the existing storage bay during the PM peak period. Currently, the striped left-turn lane is only 80'; however, the left-turn lane could be extended by utilizing the existing TWLTL along Shallowford Road. If queues in excess of 80' are experienced, it is expected that the existing TWLTL will accommodate the additional vehicles without affecting the operation at this intersection, or those in the immediate vicinity. Additionally, the eastbound left-turn movement is not currently receiving a lot of green time in the existing timing parameters. It is expected that small increments of green time for the eastbound left-turn movement will reduce the queue lengths currently shown in the table above.

Based on the above summary of capacity and queueing impacts, the proposed Shallowford Mixed-Use development is not expected to significantly impact the roadway network surrounding the development.

## 6. REFERENCES

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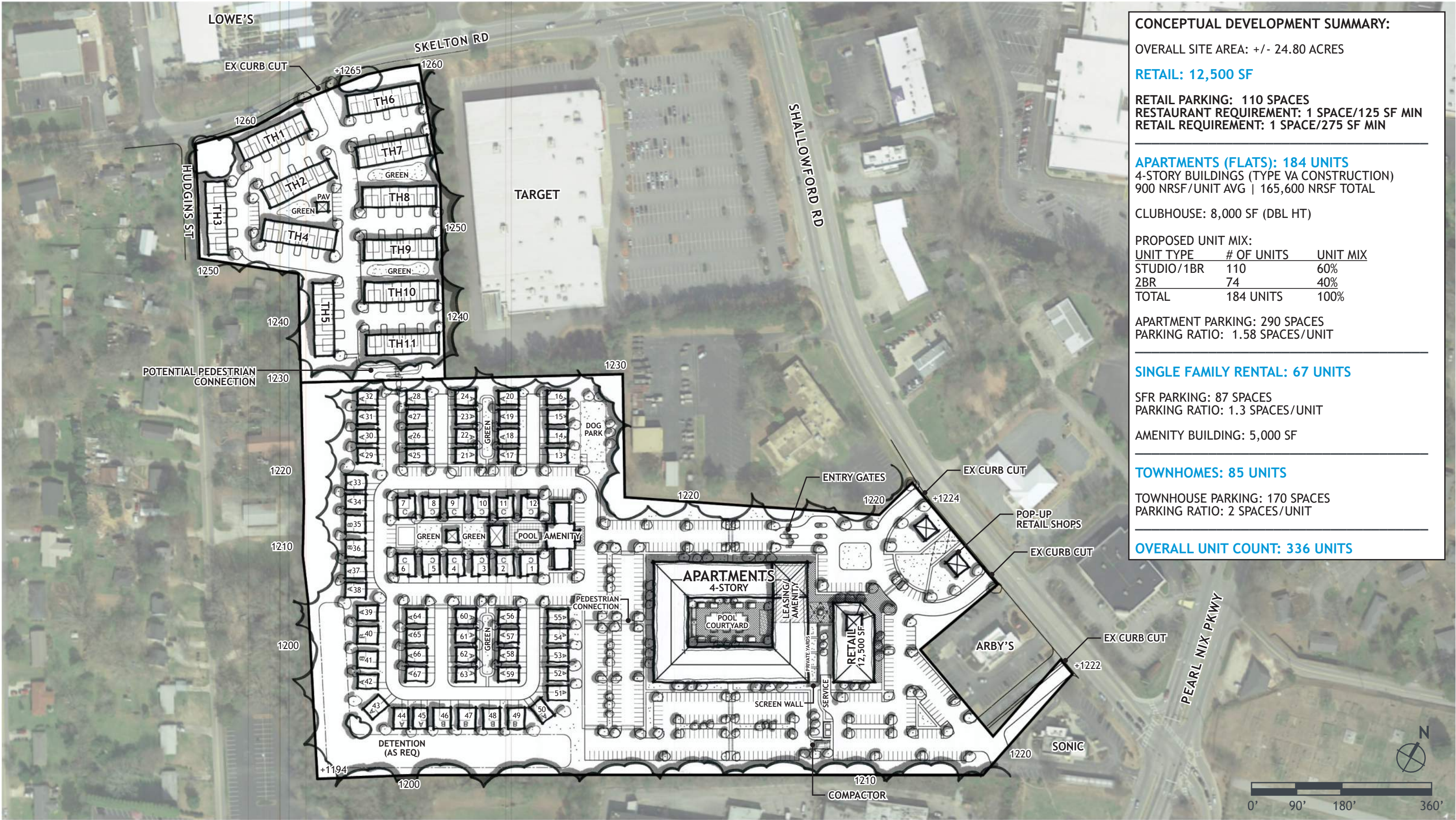
1. Trip Generation, 10<sup>th</sup> Edition + Supplement, Institute of Transportation Engineers, Washington, DC, 2020.
2. Synchro, Version 11, Trafficware Ltd., Sugar Land, TX, 2019.
3. Highway Capacity Manual, 6<sup>th</sup> Edition, Transportation Research Board, Washington, DC, 2016
4. Highway Capacity Software, Version 7.9.6, McTrans, Gainesville, FL, 202.

# APPENDIX A – SITE LAYOUT



# Conceptual Site Plan

Shallowford Rd | Gainesville, GA





## APPENDIX B – TRAFFIC COUNTS



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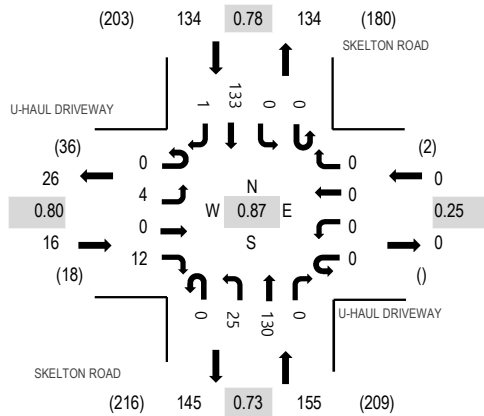
**Location:** #1 SKELTON ROAD & U-HAUL DRIVEWAY AM

**Date:** Wednesday, August 25, 2021

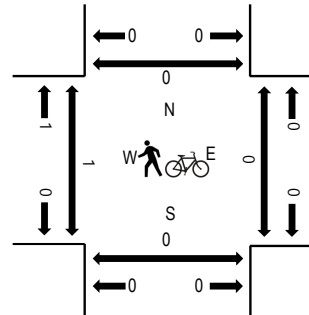
**Peak Hour:** 07:00 AM - 08:00 AM

**Peak 15-Minutes:** 07:30 AM - 07:45 AM

### Peak Hour - Motorized Vehicles



### Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | U-HAUL DRIVEWAY |      |      |       | U-HAUL DRIVEWAY |      |      |       | SKELTON ROAD |      |      |       | SKELTON ROAD |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|-----------------|------|------|-------|-----------------|------|------|-------|--------------|------|------|-------|--------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | Eastbound       |      |      |       | Westbound       |      |      |       | Northbound   |      |      |       | Southbound   |      |      |       |       |                 | West                 | East | South | North |
|                        | U-Turn          | Left | Thru | Right | U-Turn          | Left | Thru | Right | U-Turn       | Left | Thru | Right | U-Turn       | Left | Thru | Right |       |                 |                      |      |       |       |
| 6:00 AM                | 0               | 0    | 0    | 0     | 0               | 0    | 0    | 0     | 0            | 4    | 8    | 0     | 0            | 0    | 18   | 0     | 30    | 127             | 0                    | 0    | 0     | 0     |
| 6:15 AM                | 0               | 0    | 0    | 0     | 0               | 0    | 0    | 2     | 0            | 2    | 9    | 0     | 0            | 0    | 12   | 0     | 25    | 161             | 0                    | 0    | 0     | 0     |
| 6:30 AM                | 0               | 0    | 0    | 2     | 0               | 0    | 0    | 0     | 0            | 0    | 9    | 0     | 0            | 0    | 15   | 0     | 26    | 203             | 1                    | 0    | 0     | 0     |
| 6:45 AM                | 0               | 0    | 0    | 0     | 0               | 0    | 0    | 0     | 0            | 4    | 18   | 0     | 0            | 0    | 24   | 0     | 46    | 265             | 0                    | 0    | 0     | 0     |
| 7:00 AM                | 0               | 1    | 0    | 2     | 0               | 0    | 0    | 0     | 0            | 3    | 26   | 0     | 0            | 0    | 31   | 1     | 64    | 305             | 0                    | 0    | 0     | 0     |
| 7:15 AM                | 0               | 1    | 0    | 4     | 0               | 0    | 0    | 0     | 0            | 6    | 29   | 0     | 0            | 0    | 27   | 0     | 67    |                 | 0                    | 0    | 0     | 0     |
| 7:30 AM                | 0               | 0    | 0    | 3     | 0               | 0    | 0    | 0     | 0            | 10   | 43   | 0     | 0            | 0    | 32   | 0     | 88    |                 | 0                    | 0    | 0     | 0     |
| 7:45 AM                | 0               | 2    | 0    | 3     | 0               | 0    | 0    | 0     | 0            | 6    | 32   | 0     | 0            | 0    | 43   | 0     | 86    |                 | 1                    | 0    | 0     | 0     |

### Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 1     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 4    | 0     | 5     |
| Lights             | 0         | 4    | 0    | 11    | 0         | 0    | 0    | 0     | 0          | 25   | 123  | 0     | 0          | 0    | 124  | 1     | 288   |
| Mediums            | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 7    | 0     | 0          | 0    | 5    | 0     | 12    |
| Total              | 0         | 4    | 0    | 12    | 0         | 0    | 0    | 0     | 0          | 25   | 130  | 0     | 0          | 0    | 133  | 1     | 305   |



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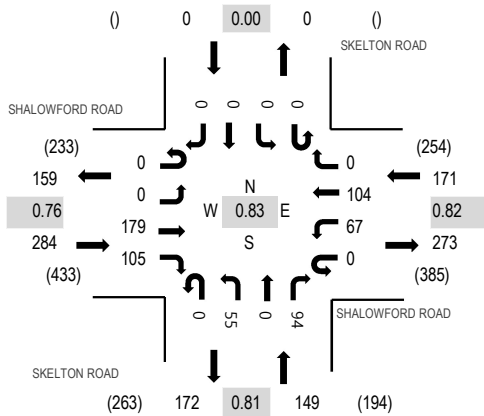
**Location:** #2 SKELTON ROAD & SHALOWFORD ROAD AM

**Date:** Wednesday, August 25, 2021

**Peak Hour:** 07:00 AM - 08:00 AM

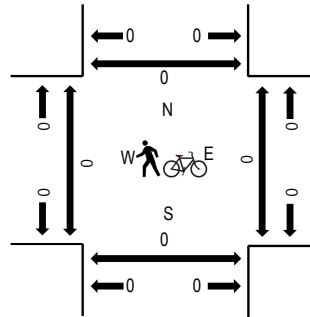
**Peak 15-Minutes:** 07:45 AM - 08:00 AM

### Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

### Peak Hour - Pedestrians/Bicycles in Crosswalk



### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | SHALOWFORD ROAD<br>Eastbound |      |      |       | SHALOWFORD ROAD<br>Westbound |      |      |       | SKELTON ROAD<br>Northbound |      |      |       | SKELTON ROAD<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|------------------------------|------|------|-------|------------------------------|------|------|-------|----------------------------|------|------|-------|----------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn                       | Left | Thru | Right | U-Turn                       | Left | Thru | Right | U-Turn                     | Left | Thru | Right | U-Turn                     | Left | Thru | Right |       |                 | West                 | East | South | North |
| 6:00 AM                | 0                            | 0    | 26   | 13    | 0                            | 11   | 10   | 0     | 0                          | 6    | 0    | 6     | 0                          | 0    | 0    | 0     | 72    | 277             | 0                    | 0    | 0     | 0     |
| 6:15 AM                | 0                            | 0    | 14   | 12    | 0                            | 5    | 13   | 0     | 0                          | 7    | 0    | 5     | 0                          | 0    | 0    | 0     | 56    | 329             | 0                    | 0    | 0     | 0     |
| 6:30 AM                | 0                            | 0    | 27   | 12    | 0                            | 5    | 13   | 0     | 0                          | 6    | 0    | 5     | 0                          | 0    | 0    | 0     | 68    | 418             | 0                    | 0    | 0     | 0     |
| 6:45 AM                | 0                            | 0    | 24   | 21    | 0                            | 12   | 14   | 0     | 0                          | 5    | 0    | 5     | 0                          | 0    | 0    | 0     | 81    | 503             | 0                    | 0    | 0     | 0     |
| 7:00 AM                | 0                            | 0    | 37   | 19    | 0                            | 17   | 19   | 0     | 0                          | 11   | 0    | 21    | 0                          | 0    | 0    | 0     | 124   | 604             | 0                    | 0    | 0     | 0     |
| 7:15 AM                | 0                            | 0    | 48   | 21    | 0                            | 13   | 28   | 0     | 0                          | 7    | 0    | 28    | 0                          | 0    | 0    | 0     | 145   |                 | 0                    | 0    | 0     | 0     |
| 7:30 AM                | 0                            | 0    | 36   | 29    | 0                            | 14   | 28   | 0     | 0                          | 18   | 0    | 28    | 0                          | 0    | 0    | 0     | 153   |                 | 0                    | 0    | 0     | 0     |
| 7:45 AM                | 0                            | 0    | 58   | 36    | 0                            | 23   | 29   | 0     | 0                          | 19   | 0    | 17    | 0                          | 0    | 0    | 0     | 182   |                 | 0                    | 0    | 0     | 0     |

### Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 4     | 0         | 3    | 1    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 8     |
| Lights             | 0         | 0    | 177  | 99    | 0         | 63   | 99   | 0     | 0          | 52   | 0    | 90    | 0          | 0    | 0    | 0     | 580   |
| Mediums            | 0         | 0    | 2    | 2     | 0         | 1    | 4    | 0     | 0          | 3    | 0    | 4     | 0          | 0    | 0    | 0     | 16    |
| Total              | 0         | 0    | 179  | 105   | 0         | 67   | 104  | 0     | 0          | 55   | 0    | 94    | 0          | 0    | 0    | 0     | 604   |



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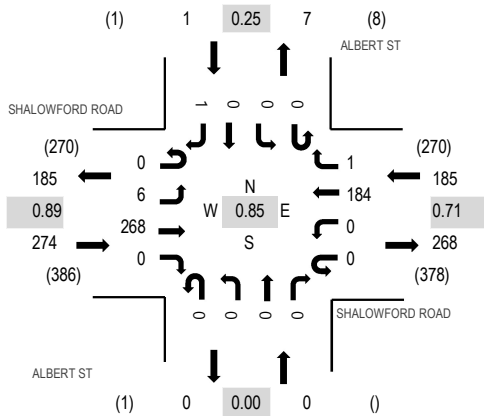
Location: #3 ALBERT ST & SHALOWFORD ROAD AM

Date: Wednesday, August 25, 2021

Peak Hour: 07:00 AM - 08:00 AM

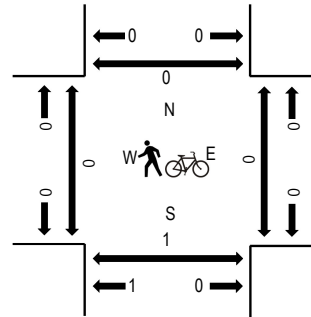
Peak 15-Minutes: 07:45 AM - 08:00 AM

### Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

### Peak Hour - Pedestrians/Bicycles in Crosswalk



### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | SHALOWFORD ROAD<br>Eastbound |      |      |       | SHALOWFORD ROAD<br>Westbound |      |      |       | ALBERT ST<br>Northbound |      |      |       | ALBERT ST<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|------------------------------|------|------|-------|------------------------------|------|------|-------|-------------------------|------|------|-------|-------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn                       | Left | Thru | Right | U-Turn                       | Left | Thru | Right | U-Turn                  | Left | Thru | Right | U-Turn                  | Left | Thru | Right |       |                 | West                 | East | South | North |
| 6:00 AM                | 0                            | 0    | 31   | 0     | 0                            | 0    | 20   | 0     | 0                       | 0    | 0    | 0     | 0                       | 0    | 0    | 0     | 51    | 197             | 0                    | 0    | 0     | 0     |
| 6:15 AM                | 0                            | 1    | 21   | 0     | 0                            | 0    | 16   | 0     | 0                       | 0    | 0    | 0     | 0                       | 0    | 0    | 0     | 38    | 241             | 0                    | 0    | 0     | 0     |
| 6:30 AM                | 0                            | 0    | 30   | 0     | 0                            | 0    | 19   | 0     | 0                       | 0    | 0    | 0     | 0                       | 0    | 0    | 0     | 49    | 327             | 0                    | 0    | 1     | 0     |
| 6:45 AM                | 0                            | 0    | 28   | 1     | 0                            | 0    | 30   | 0     | 0                       | 0    | 0    | 0     | 0                       | 0    | 0    | 0     | 59    | 383             | 0                    | 0    | 0     | 0     |
| 7:00 AM                | 0                            | 1    | 62   | 0     | 0                            | 0    | 32   | 0     | 0                       | 0    | 0    | 0     | 0                       | 0    | 0    | 0     | 95    | 460             | 0                    | 0    | 0     | 0     |
| 7:15 AM                | 0                            | 2    | 75   | 0     | 0                            | 0    | 45   | 1     | 0                       | 0    | 0    | 0     | 0                       | 0    | 0    | 1     | 124   |                 | 0                    | 0    | 0     | 0     |
| 7:30 AM                | 0                            | 3    | 60   | 0     | 0                            | 0    | 42   | 0     | 0                       | 0    | 0    | 0     | 0                       | 0    | 0    | 0     | 105   |                 | 0                    | 0    | 1     | 0     |
| 7:45 AM                | 0                            | 0    | 71   | 0     | 0                            | 0    | 65   | 0     | 0                       | 0    | 0    | 0     | 0                       | 0    | 0    | 0     | 136   |                 | 0                    | 0    | 0     | 0     |

### Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 4    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 4     |
| Lights             | 0         | 6    | 262  | 0     | 0         | 0    | 175  | 1     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 1     | 445   |
| Mediums            | 0         | 0    | 6    | 0     | 0         | 0    | 5    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 11    |
| Total              | 0         | 6    | 268  | 0     | 0         | 0    | 184  | 1     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 1     | 460   |







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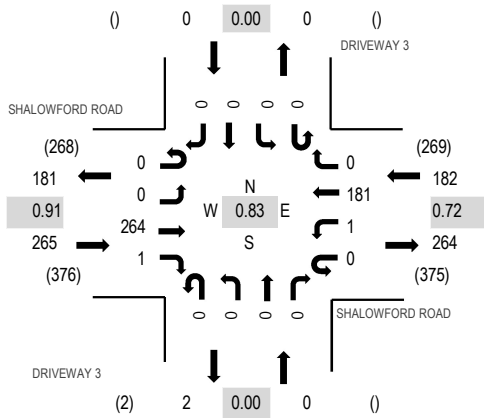
Location: #5 DRIVEWAY 3 & SHALOWFORD ROAD AM

Date: Wednesday, August 25, 2021

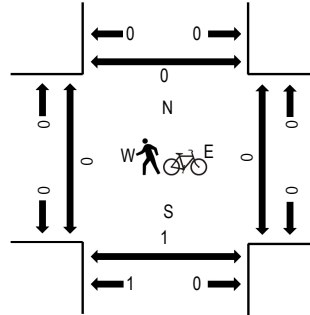
Peak Hour: 07:00 AM - 08:00 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

### Peak Hour - Motorized Vehicles



### Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | SHALOWFORD ROAD<br>Eastbound |      |      |       | SHALOWFORD ROAD<br>Westbound |      |      |       | DRIVEWAY 3<br>Northbound |      |      |       | DRIVEWAY 3<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|------------------------------|------|------|-------|------------------------------|------|------|-------|--------------------------|------|------|-------|--------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn                       | Left | Thru | Right | U-Turn                       | Left | Thru | Right | U-Turn                   | Left | Thru | Right | U-Turn                   | Left | Thru | Right |       |                 | West                 | East | South | North |
| 6:00 AM                | 0                            | 0    | 31   | 0     | 0                            | 0    | 19   | 0     | 0                        | 0    | 0    | 0     | 0                        | 0    | 0    | 0     | 50    | 198             | 0                    | 0    | 0     | 0     |
| 6:15 AM                | 0                            | 0    | 21   | 0     | 0                            | 0    | 19   | 0     | 0                        | 0    | 0    | 0     | 0                        | 0    | 0    | 0     | 40    | 241             | 0                    | 0    | 0     | 0     |
| 6:30 AM                | 0                            | 0    | 32   | 0     | 0                            | 0    | 19   | 0     | 0                        | 0    | 0    | 0     | 0                        | 0    | 0    | 0     | 51    | 311             | 0                    | 1    | 0     | 0     |
| 6:45 AM                | 0                            | 0    | 27   | 0     | 0                            | 0    | 30   | 0     | 0                        | 0    | 0    | 0     | 0                        | 0    | 0    | 0     | 57    | 369             | 0                    | 0    | 0     | 0     |
| 7:00 AM                | 0                            | 0    | 60   | 0     | 0                            | 1    | 32   | 0     | 0                        | 0    | 0    | 0     | 0                        | 0    | 0    | 0     | 93    | 447             | 0                    | 0    | 0     | 0     |
| 7:15 AM                | 0                            | 0    | 73   | 0     | 0                            | 0    | 37   | 0     | 0                        | 0    | 0    | 0     | 0                        | 0    | 0    | 0     | 110   |                 | 0                    | 0    | 0     | 0     |
| 7:30 AM                | 0                            | 0    | 60   | 0     | 0                            | 0    | 49   | 0     | 0                        | 0    | 0    | 0     | 0                        | 0    | 0    | 0     | 109   |                 | 0                    | 0    | 1     | 0     |
| 7:45 AM                | 0                            | 0    | 71   | 1     | 0                            | 0    | 63   | 0     | 0                        | 0    | 0    | 0     | 0                        | 0    | 0    | 0     | 135   |                 | 0                    | 0    | 0     | 0     |

### Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 3    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 3     |
| Lights             | 0         | 0    | 258  | 1     | 0         | 1    | 172  | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 432   |
| Mediums            | 0         | 0    | 6    | 0     | 0         | 0    | 6    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 12    |
| Total              | 0         | 0    | 264  | 1     | 0         | 1    | 181  | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 447   |



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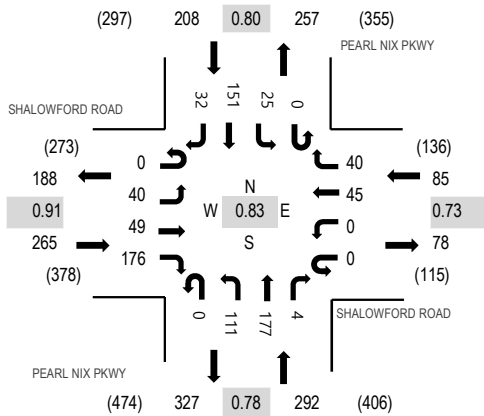
Location: #6 PEARL NIX PKWY & SHALOWFORD ROAD AM

Date: Wednesday, August 25, 2021

Peak Hour: 07:00 AM - 08:00 AM

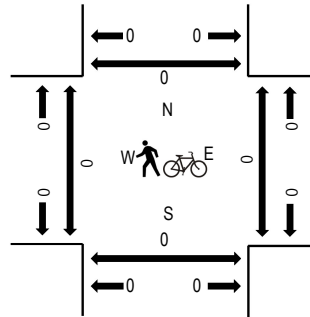
Peak 15-Minutes: 07:45 AM - 08:00 AM

### Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

### Peak Hour - Pedestrians/Bicycles in Crosswalk



### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | SHALOWFORD ROAD<br>Eastbound |      |      |       | SHALOWFORD ROAD<br>Westbound |      |      |       | PEARL NIX PKWY<br>Northbound |      |      |       | PEARL NIX PKWY<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|------------------------------|------|------|-------|------------------------------|------|------|-------|------------------------------|------|------|-------|------------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn                       | Left | Thru | Right | U-Turn                       | Left | Thru | Right | U-Turn                       | Left | Thru | Right | U-Turn                       | Left | Thru | Right |       |                 | West                 | East | South | North |
| 6:00 AM                | 0                            | 2    | 8    | 21    | 0                            | 1    | 6    | 0     | 0                            | 8    | 18   | 0     | 0                            | 1    | 14   | 4     | 83    | 367             | 0                    | 0    | 0     | 0     |
| 6:15 AM                | 0                            | 3    | 9    | 11    | 0                            | 0    | 5    | 4     | 0                            | 11   | 9    | 0     | 0                            | 2    | 10   | 2     | 66    | 447             | 0                    | 0    | 0     | 0     |
| 6:30 AM                | 0                            | 1    | 10   | 20    | 0                            | 0    | 11   | 6     | 0                            | 8    | 20   | 1     | 0                            | 1    | 21   | 2     | 101   | 596             | 0                    | 0    | 0     | 0     |
| 6:45 AM                | 0                            | 2    | 4    | 22    | 0                            | 0    | 8    | 10    | 0                            | 16   | 23   | 0     | 0                            | 1    | 27   | 4     | 117   | 712             | 0                    | 0    | 0     | 0     |
| 7:00 AM                | 0                            | 9    | 11   | 44    | 0                            | 0    | 9    | 8     | 0                            | 21   | 28   | 1     | 0                            | 3    | 24   | 5     | 163   | 850             | 0                    | 0    | 0     | 0     |
| 7:15 AM                | 0                            | 9    | 13   | 51    | 0                            | 0    | 9    | 9     | 0                            | 29   | 44   | 1     | 0                            | 12   | 34   | 4     | 215   |                 | 0                    | 0    | 0     | 0     |
| 7:30 AM                | 0                            | 14   | 13   | 33    | 0                            | 0    | 10   | 11    | 0                            | 25   | 49   | 1     | 0                            | 6    | 44   | 11    | 217   |                 | 0                    | 0    | 0     | 0     |
| 7:45 AM                | 0                            | 8    | 12   | 48    | 0                            | 0    | 17   | 12    | 0                            | 36   | 56   | 1     | 0                            | 4    | 49   | 12    | 255   |                 | 0                    | 0    | 0     | 0     |

### Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 4    | 0    | 0     | 0          | 0    | 0    | 0     | 4     |
| Lights             | 0         | 37   | 49   | 173   | 0         | 0    | 44   | 39    | 0          | 104  | 171  | 4     | 0          | 25   | 149  | 30    | 825   |
| Mediums            | 0         | 3    | 0    | 3     | 0         | 0    | 1    | 1     | 0          | 3    | 6    | 0     | 0          | 0    | 2    | 2     | 21    |
| Total              | 0         | 40   | 49   | 176   | 0         | 0    | 45   | 40    | 0          | 111  | 177  | 4     | 0          | 25   | 151  | 32    | 850   |



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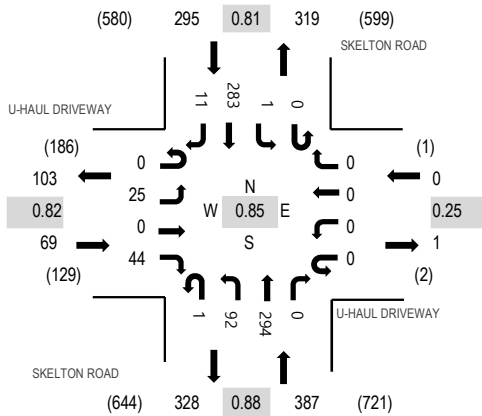
**Location:** #1 SKELTON ROAD & U-HAUL DRIVEWAY PM

**Date:** Wednesday, August 25, 2021

**Peak Hour:** 05:00 PM - 06:00 PM

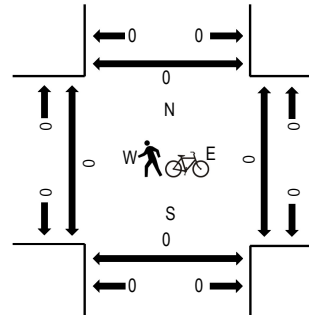
**Peak 15-Minutes:** 05:30 PM - 05:45 PM

### Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

### Peak Hour - Pedestrians/Bicycles in Crosswalk



### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | U-HAUL DRIVEWAY<br>Eastbound |      |      |       | U-HAUL DRIVEWAY<br>Westbound |      |      |       | SKELTON ROAD<br>Northbound |      |      |       | SKELTON ROAD<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|------------------------------|------|------|-------|------------------------------|------|------|-------|----------------------------|------|------|-------|----------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn                       | Left | Thru | Right | U-Turn                       | Left | Thru | Right | U-Turn                     | Left | Thru | Right | U-Turn                     | Left | Thru | Right |       |                 | West                 | East | South | North |
| 4:00 PM                | 0                            | 4    | 0    | 13    | 0                            | 0    | 0    | 0     | 0                          | 14   | 49   | 0     | 0                          | 1    | 79   | 2     | 162   | 680             | 0                    | 0    | 0     | 0     |
| 4:15 PM                | 0                            | 4    | 0    | 4     | 0                            | 0    | 0    | 0     | 0                          | 20   | 71   | 0     | 0                          | 0    | 73   | 0     | 172   | 685             | 0                    | 0    | 0     | 0     |
| 4:30 PM                | 0                            | 7    | 0    | 13    | 0                            | 0    | 0    | 0     | 0                          | 20   | 60   | 0     | 0                          | 0    | 61   | 3     | 164   | 691             | 0                    | 0    | 0     | 0     |
| 4:45 PM                | 0                            | 6    | 0    | 9     | 0                            | 1    | 0    | 0     | 0                          | 21   | 79   | 0     | 0                          | 0    | 63   | 3     | 182   | 749             | 0                    | 0    | 0     | 0     |
| 5:00 PM                | 0                            | 8    | 0    | 13    | 0                            | 0    | 0    | 0     | 0                          | 26   | 62   | 0     | 0                          | 1    | 54   | 3     | 167   | 751             | 0                    | 0    | 0     | 0     |
| 5:15 PM                | 0                            | 3    | 0    | 10    | 0                            | 0    | 0    | 0     | 0                          | 20   | 86   | 0     | 0                          | 0    | 58   | 1     | 178   |                 | 0                    | 0    | 0     | 0     |
| 5:30 PM                | 0                            | 6    | 0    | 12    | 0                            | 0    | 0    | 0     | 0                          | 26   | 91   | 0     | 0                          | 0    | 85   | 2     | 222   |                 | 0                    | 0    | 0     | 0     |
| 5:45 PM                | 0                            | 8    | 0    | 9     | 0                            | 0    | 0    | 0     | 1                          | 20   | 55   | 0     | 0                          | 0    | 86   | 5     | 184   |                 | 0                    | 0    | 0     | 0     |

### Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 1     | 1     |
| Lights             | 0         | 25   | 0    | 44    | 0         | 0    | 0    | 0     | 1          | 92   | 294  | 0     | 0          | 1    | 282  | 10    | 749   |
| Mediums            | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 1    | 0     | 1     |
| Total              | 0         | 25   | 0    | 44    | 0         | 0    | 0    | 0     | 1          | 92   | 294  | 0     | 0          | 1    | 283  | 11    | 751   |



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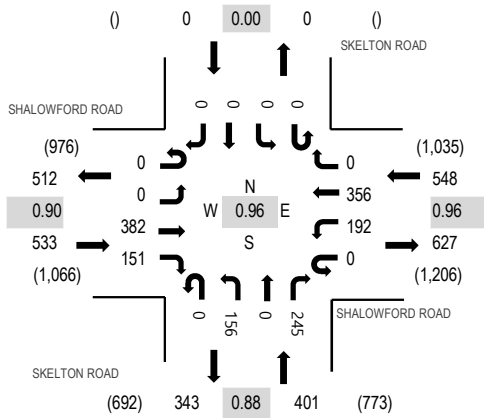
Location: #2 SKELTON ROAD & SHALOWFORD ROAD PM

Date: Wednesday, August 25, 2021

Peak Hour: 04:45 PM - 05:45 PM

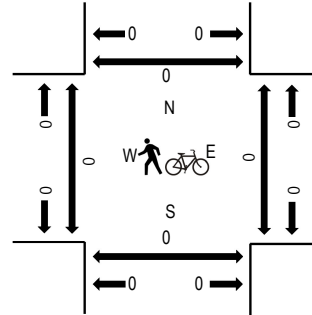
Peak 15-Minutes: 05:00 PM - 05:15 PM

### Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

### Peak Hour - Pedestrians/Bicycles in Crosswalk



### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | SHALOWFORD ROAD<br>Eastbound |      |      |       | SHALOWFORD ROAD<br>Westbound |      |      |       | SKELTON ROAD<br>Northbound |      |      |       | SKELTON ROAD<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|------------------------------|------|------|-------|------------------------------|------|------|-------|----------------------------|------|------|-------|----------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn                       | Left | Thru | Right | U-Turn                       | Left | Thru | Right | U-Turn                     | Left | Thru | Right | U-Turn                     | Left | Thru | Right |       |                 | West                 | East | South | North |
| 4:00 PM                | 0                            | 0    | 99   | 48    | 0                            | 56   | 70   | 0     | 0                          | 40   | 0    | 49    | 0                          | 0    | 0    | 0     | 362   | 1,421           | 0                    | 0    | 0     | 0     |
| 4:15 PM                | 0                            | 0    | 85   | 40    | 0                            | 37   | 87   | 0     | 0                          | 37   | 0    | 69    | 0                          | 0    | 0    | 0     | 355   | 1,443           | 0                    | 0    | 0     | 1     |
| 4:30 PM                | 0                            | 0    | 101  | 38    | 0                            | 41   | 77   | 0     | 0                          | 38   | 0    | 43    | 0                          | 0    | 0    | 0     | 338   | 1,446           | 0                    | 0    | 0     | 0     |
| 4:45 PM                | 0                            | 0    | 80   | 39    | 0                            | 42   | 91   | 0     | 0                          | 45   | 0    | 69    | 0                          | 0    | 0    | 0     | 366   | 1,482           | 0                    | 0    | 0     | 0     |
| 5:00 PM                | 0                            | 0    | 107  | 44    | 0                            | 48   | 87   | 0     | 0                          | 36   | 0    | 62    | 0                          | 0    | 0    | 0     | 384   | 1,453           | 0                    | 0    | 0     | 0     |
| 5:15 PM                | 0                            | 0    | 102  | 32    | 0                            | 49   | 93   | 0     | 0                          | 30   | 0    | 52    | 0                          | 0    | 0    | 0     | 358   |                 | 0                    | 0    | 0     | 0     |
| 5:30 PM                | 0                            | 0    | 93   | 36    | 0                            | 53   | 85   | 0     | 0                          | 45   | 0    | 62    | 0                          | 0    | 0    | 0     | 374   |                 | 0                    | 0    | 0     | 0     |
| 5:45 PM                | 0                            | 0    | 82   | 40    | 0                            | 49   | 70   | 0     | 0                          | 45   | 0    | 51    | 0                          | 0    | 0    | 0     | 337   |                 | 0                    | 0    | 0     | 0     |

### Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 2     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 1     | 0          | 0    | 0    | 0     | 3     |
| Lights             | 0         | 0    | 379  | 149   | 0         | 192  | 355  | 0     | 0          | 156  | 0    | 244   | 0          | 0    | 0    | 0     | 1,475 |
| Mediums            | 0         | 0    | 3    | 0     | 0         | 0    | 1    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 4     |
| Total              | 0         | 0    | 382  | 151   | 0         | 192  | 356  | 0     | 0          | 156  | 0    | 245   | 0          | 0    | 0    | 0     | 1,482 |



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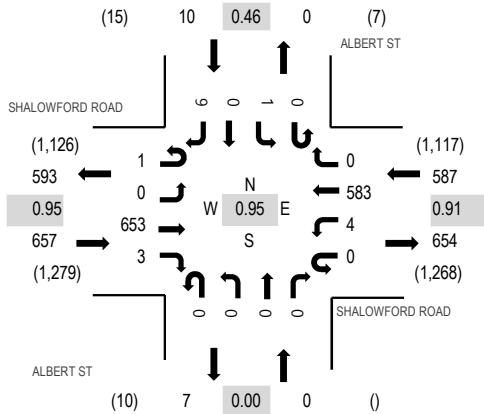
Location: #3 ALBERT ST & SHALOWFORD ROAD PM

Date: Wednesday, August 25, 2021

Peak Hour: 04:45 PM - 05:45 PM

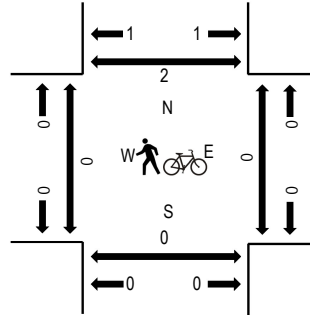
Peak 15-Minutes: 05:00 PM - 05:15 PM

### Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

### Peak Hour - Pedestrians/Bicycles in Crosswalk



### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | SHALOWFORD ROAD<br>Eastbound |      |      |       | SHALOWFORD ROAD<br>Westbound |      |      |       | ALBERT ST<br>Northbound |      |      |       | ALBERT ST<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|------------------------------|------|------|-------|------------------------------|------|------|-------|-------------------------|------|------|-------|-------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn                       | Left | Thru | Right | U-Turn                       | Left | Thru | Right | U-Turn                  | Left | Thru | Right | U-Turn                  | Left | Thru | Right |       |                 | West                 | East | South | North |
| 4:00 PM                | 0                            | 2    | 166  | 0     | 0                            | 0    | 123  | 1     | 0                       | 0    | 0    | 0     | 0                       | 0    | 0    | 2     | 294   | 1,180           | 0                    | 0    | 1     | 0     |
| 4:15 PM                | 0                            | 2    | 160  | 1     | 0                            | 0    | 141  | 0     | 0                       | 0    | 0    | 0     | 0                       | 0    | 0    | 1     | 305   | 1,216           | 0                    | 0    | 2     | 0     |
| 4:30 PM                | 0                            | 1    | 154  | 0     | 0                            | 0    | 133  | 0     | 0                       | 0    | 0    | 0     | 0                       | 0    | 0    | 1     | 289   | 1,236           | 0                    | 0    | 0     | 1     |
| 4:45 PM                | 0                            | 0    | 155  | 0     | 0                            | 1    | 136  | 0     | 0                       | 0    | 0    | 0     | 0                       | 0    | 0    | 0     | 292   | 1,254           | 0                    | 0    | 0     | 0     |
| 5:00 PM                | 0                            | 0    | 172  | 1     | 0                            | 1    | 150  | 0     | 0                       | 0    | 0    | 0     | 0                       | 0    | 0    | 6     | 330   | 1,231           | 0                    | 0    | 0     | 0     |
| 5:15 PM                | 0                            | 0    | 162  | 0     | 0                            | 1    | 161  | 0     | 0                       | 0    | 0    | 0     | 1                       | 0    | 0    | 0     | 325   |                 | 0                    | 0    | 0     | 0     |
| 5:30 PM                | 1                            | 0    | 164  | 2     | 0                            | 1    | 136  | 0     | 0                       | 0    | 0    | 0     | 0                       | 0    | 0    | 3     | 307   |                 | 0                    | 0    | 0     | 0     |
| 5:45 PM                | 0                            | 1    | 134  | 1     | 0                            | 1    | 131  | 0     | 0                       | 0    | 0    | 0     | 0                       | 0    | 0    | 1     | 269   |                 | 0                    | 0    | 2     | 0     |

### Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 2    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 2     |
| Lights             | 1         | 0    | 649  | 3     | 0         | 4    | 582  | 0     | 0          | 0    | 0    | 0     | 0          | 1    | 0    | 9     | 1,249 |
| Mediums            | 0         | 0    | 2    | 0     | 0         | 0    | 1    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 3     |
| Total              | 1         | 0    | 653  | 3     | 0         | 4    | 583  | 0     | 0          | 0    | 0    | 0     | 0          | 1    | 0    | 9     | 1,254 |





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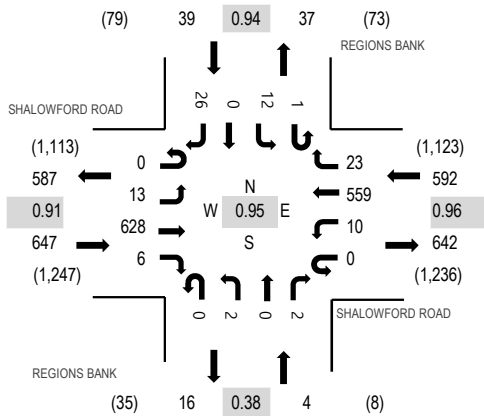
**Location:** #4 REGIONS BANK & SHALOWFORD ROAD PM

**Date:** Wednesday, August 25, 2021

**Peak Hour:** 04:45 PM - 05:45 PM

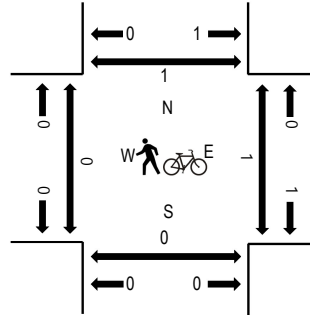
**Peak 15-Minutes:** 05:00 PM - 05:15 PM

### Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

### Peak Hour - Pedestrians/Bicycles in Crosswalk



### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | SHALOWFORD ROAD<br>Eastbound |      |      |       | SHALOWFORD ROAD<br>Westbound |      |      |       | REGIONS BANK<br>Northbound |      |      |       | REGIONS BANK<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|------------------------------|------|------|-------|------------------------------|------|------|-------|----------------------------|------|------|-------|----------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn                       | Left | Thru | Right | U-Turn                       | Left | Thru | Right | U-Turn                     | Left | Thru | Right | U-Turn                     | Left | Thru | Right |       |                 | West                 | East | South | North |
| 4:00 PM                | 0                            | 3    | 150  | 2     | 0                            | 7    | 119  | 5     | 0                          | 0    | 0    | 0     | 0                          | 6    | 0    | 4     | 296   | 1,210           | 0                    | 1    | 1     | 0     |
| 4:15 PM                | 0                            | 5    | 153  | 3     | 0                            | 1    | 132  | 6     | 0                          | 3    | 1    | 0     | 0                          | 5    | 0    | 7     | 316   | 1,251           | 0                    | 0    | 2     | 0     |
| 4:30 PM                | 0                            | 7    | 142  | 0     | 0                            | 1    | 125  | 4     | 0                          | 0    | 0    | 0     | 0                          | 5    | 0    | 7     | 291   | 1,256           | 0                    | 0    | 0     | 1     |
| 4:45 PM                | 0                            | 3    | 146  | 2     | 0                            | 2    | 135  | 6     | 0                          | 1    | 0    | 1     | 0                          | 6    | 0    | 5     | 307   | 1,282           | 0                    | 0    | 0     | 0     |
| 5:00 PM                | 0                            | 2    | 173  | 3     | 0                            | 4    | 142  | 7     | 0                          | 0    | 0    | 0     | 0                          | 1    | 0    | 5     | 337   | 1,247           | 0                    | 0    | 0     | 0     |
| 5:15 PM                | 0                            | 3    | 154  | 0     | 0                            | 2    | 150  | 2     | 0                          | 1    | 0    | 1     | 1                          | 1    | 0    | 6     | 321   |                 | 0                    | 0    | 0     | 0     |
| 5:30 PM                | 0                            | 5    | 155  | 1     | 0                            | 2    | 132  | 8     | 0                          | 0    | 0    | 0     | 0                          | 4    | 0    | 10    | 317   |                 | 0                    | 0    | 0     | 0     |
| 5:45 PM                | 0                            | 3    | 131  | 1     | 0                            | 4    | 125  | 2     | 0                          | 0    | 0    | 0     | 0                          | 2    | 0    | 4     | 272   |                 | 0                    | 0    | 2     | 0     |

### Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 2    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 2     |
| Lights             | 0         | 13   | 624  | 6     | 0         | 10   | 558  | 23    | 0          | 2    | 0    | 2     | 1          | 12   | 0    | 26    | 1,277 |
| Mediums            | 0         | 0    | 2    | 0     | 0         | 0    | 1    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 3     |
| Total              | 0         | 13   | 628  | 6     | 0         | 10   | 559  | 23    | 0          | 2    | 0    | 2     | 1          | 12   | 0    | 26    | 1,282 |



ALL TRAFFIC DATA SERVICES

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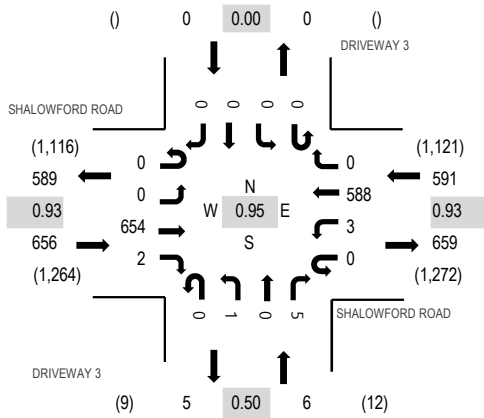
Location: #5 DRIVEWAY 3 & SHALOWFORD ROAD PM

Date: Wednesday, August 25, 2021

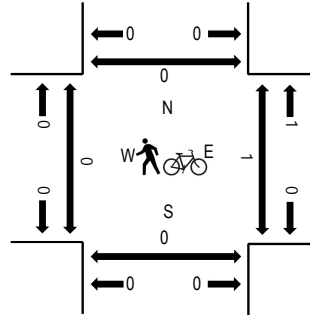
Peak Hour: 04:45 PM - 05:45 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

### Peak Hour - Motorized Vehicles



### Peak Hour - Pedestrians/Bicycles in Crosswalk



### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | SHALOWFORD ROAD<br>Eastbound |      |      |       | SHALOWFORD ROAD<br>Westbound |      |      |       | DRIVEWAY 3<br>Northbound |      |      |       | DRIVEWAY 3<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|------------------------------|------|------|-------|------------------------------|------|------|-------|--------------------------|------|------|-------|--------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn                       | Left | Thru | Right | U-Turn                       | Left | Thru | Right | U-Turn                   | Left | Thru | Right | U-Turn                   | Left | Thru | Right |       |                 | West                 | East | South | North |
| 4:00 PM                | 0                            | 0    | 163  | 0     | 0                            | 2    | 129  | 0     | 0                        | 0    | 0    | 1     | 0                        | 0    | 0    | 0     | 295   | 1,173           | 0                    | 0    | 0     | 0     |
| 4:15 PM                | 0                            | 0    | 160  | 0     | 0                            | 2    | 138  | 0     | 0                        | 1    | 0    | 3     | 0                        | 0    | 0    | 0     | 304   | 1,209           | 0                    | 0    | 1     | 0     |
| 4:30 PM                | 0                            | 0    | 148  | 0     | 0                            | 0    | 130  | 0     | 0                        | 0    | 0    | 0     | 0                        | 0    | 0    | 0     | 278   | 1,227           | 0                    | 0    | 0     | 0     |
| 4:45 PM                | 0                            | 0    | 157  | 0     | 0                            | 1    | 137  | 0     | 0                        | 0    | 0    | 1     | 0                        | 0    | 0    | 0     | 296   | 1,253           | 0                    | 0    | 0     | 0     |
| 5:00 PM                | 0                            | 0    | 175  | 2     | 0                            | 1    | 150  | 0     | 0                        | 1    | 0    | 2     | 0                        | 0    | 0    | 0     | 331   | 1,224           | 0                    | 0    | 0     | 0     |
| 5:15 PM                | 0                            | 0    | 161  | 0     | 0                            | 1    | 158  | 0     | 0                        | 0    | 0    | 2     | 0                        | 0    | 0    | 0     | 322   |                 | 0                    | 0    | 0     | 0     |
| 5:30 PM                | 0                            | 0    | 161  | 0     | 0                            | 0    | 143  | 0     | 0                        | 0    | 0    | 0     | 0                        | 0    | 0    | 0     | 304   |                 | 0                    | 1    | 0     | 0     |
| 5:45 PM                | 0                            | 0    | 137  | 0     | 0                            | 0    | 129  | 0     | 0                        | 0    | 0    | 1     | 0                        | 0    | 0    | 0     | 267   |                 | 0                    | 0    | 2     | 0     |

### Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 0     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0     |
| Lights             | 0         | 0    | 651  | 2     | 0         | 3    | 587  | 0     | 0          | 1    | 0    | 5     | 0          | 0    | 0    | 0     | 1,249 |
| Mediums            | 0         | 0    | 3    | 0     | 0         | 0    | 1    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 4     |
| Total              | 0         | 0    | 654  | 2     | 0         | 3    | 588  | 0     | 0          | 1    | 0    | 5     | 0          | 0    | 0    | 0     | 1,253 |



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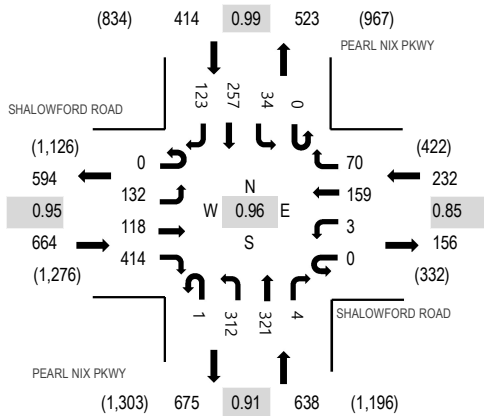
Location: #6 PEARL NIX PKWY & SHALOWFORD ROAD PM

Date: Wednesday, August 25, 2021

Peak Hour: 04:45 PM - 05:45 PM

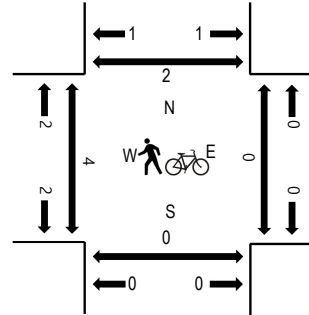
Peak 15-Minutes: 05:15 PM - 05:30 PM

### Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

### Peak Hour - Pedestrians/Bicycles in Crosswalk



### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | SHALOWFORD ROAD<br>Eastbound |      |      |       | SHALOWFORD ROAD<br>Westbound |      |      |       | PEARL NIX PKWY<br>Northbound |      |      |       | PEARL NIX PKWY<br>Southbound |      |      |       | Total | Rolling<br>Hour | Pedestrian Crossings |      |       |       |
|------------------------|------------------------------|------|------|-------|------------------------------|------|------|-------|------------------------------|------|------|-------|------------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
|                        | U-Turn                       | Left | Thru | Right | U-Turn                       | Left | Thru | Right | U-Turn                       | Left | Thru | Right | U-Turn                       | Left | Thru | Right |       |                 | West                 | East | South | North |
| 4:00 PM                | 0                            | 27   | 45   | 100   | 0                            | 1    | 25   | 16    | 0                            | 75   | 64   | 1     | 0                            | 10   | 55   | 29    | 448   | 1,825           | 0                    | 1    | 0     | 1     |
| 4:15 PM                | 0                            | 29   | 36   | 92    | 0                            | 0    | 37   | 14    | 0                            | 66   | 69   | 1     | 0                            | 8    | 69   | 37    | 458   | 1,878           | 0                    | 0    | 0     | 1     |
| 4:30 PM                | 0                            | 24   | 25   | 109   | 0                            | 0    | 34   | 25    | 0                            | 62   | 70   | 4     | 1                            | 10   | 57   | 38    | 459   | 1,927           | 1                    | 0    | 0     | 0     |
| 4:45 PM                | 0                            | 29   | 32   | 96    | 0                            | 1    | 38   | 19    | 0                            | 78   | 76   | 1     | 0                            | 10   | 51   | 29    | 460   | 1,948           | 0                    | 0    | 0     | 0     |
| 5:00 PM                | 0                            | 29   | 23   | 120   | 0                            | 1    | 29   | 15    | 0                            | 90   | 84   | 2     | 0                            | 8    | 68   | 32    | 501   | 1,903           | 0                    | 0    | 0     | 1     |
| 5:15 PM                | 0                            | 33   | 30   | 98    | 0                            | 0    | 49   | 19    | 1                            | 81   | 89   | 0     | 0                            | 8    | 69   | 30    | 507   |                 | 0                    | 0    | 0     | 0     |
| 5:30 PM                | 0                            | 41   | 33   | 100   | 0                            | 1    | 43   | 17    | 0                            | 63   | 72   | 1     | 0                            | 8    | 69   | 32    | 480   |                 | 4                    | 0    | 0     | 0     |
| 5:45 PM                | 0                            | 21   | 22   | 82    | 0                            | 1    | 26   | 11    | 0                            | 72   | 72   | 2     | 1                            | 12   | 62   | 31    | 415   |                 | 0                    | 0    | 0     | 0     |

### Peak Rolling Hour Flow Rates

| Vehicle Type       | Eastbound |      |      |       | Westbound |      |      |       | Northbound |      |      |       | Southbound |      |      |       | Total |
|--------------------|-----------|------|------|-------|-----------|------|------|-------|------------|------|------|-------|------------|------|------|-------|-------|
|                    | U-Turn    | Left | Thru | Right | U-Turn    | Left | Thru | Right | U-Turn     | Left | Thru | Right | U-Turn     | Left | Thru | Right |       |
| Articulated Trucks | 0         | 0    | 0    | 2     | 0         | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 0          | 0    | 0    | 0     | 2     |
| Lights             | 0         | 132  | 118  | 410   | 0         | 3    | 159  | 70    | 1          | 311  | 320  | 4     | 0          | 34   | 257  | 123   | 1,942 |
| Mediums            | 0         | 0    | 0    | 2     | 0         | 0    | 0    | 0     | 0          | 1    | 1    | 0     | 0          | 0    | 0    | 0     | 4     |
| Total              | 0         | 132  | 118  | 414   | 0         | 3    | 159  | 70    | 1          | 312  | 321  | 4     | 0          | 34   | 257  | 123   | 1,948 |

# All Traffic Data Services

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Page 1

Site Code: 1

Station ID: 1

SKELTON ROAD NORTH OF U-HAUL DRIVEWAY

Latitude: 0' 0.0000 Undefined

Longitude: 0' 0.0000 Undefined

| Start Time | 25-Aug-21<br>Wed | NB    | SB    | Total |
|------------|------------------|-------|-------|-------|
| 12:00 AM   |                  | 4     | 1     | 5     |
| 12:15      |                  | 3     | 4     | 7     |
| 12:30      |                  | 1     | 1     | 2     |
| 12:45      |                  | 2     | 5     | 7     |
| 01:00      |                  | 2     | 6     | 8     |
| 01:15      |                  | 3     | 2     | 5     |
| 01:30      |                  | 1     | 1     | 2     |
| 01:45      |                  | 4     | 1     | 5     |
| 02:00      |                  | 5     | 4     | 9     |
| 02:15      |                  | 1     | 1     | 2     |
| 02:30      |                  | 0     | 1     | 1     |
| 02:45      |                  | 4     | 0     | 4     |
| 03:00      |                  | 0     | 2     | 2     |
| 03:15      |                  | 3     | 0     | 3     |
| 03:30      |                  | 2     | 2     | 4     |
| 03:45      |                  | 3     | 2     | 5     |
| 04:00      |                  | 7     | 4     | 11    |
| 04:15      |                  | 3     | 2     | 5     |
| 04:30      |                  | 3     | 6     | 9     |
| 04:45      |                  | 3     | 3     | 6     |
| 05:00      |                  | 4     | 5     | 9     |
| 05:15      |                  | 7     | 6     | 13    |
| 05:30      |                  | 14    | 5     | 19    |
| 05:45      |                  | 14    | 12    | 26    |
| 06:00      |                  | 10    | 18    | 28    |
| 06:15      |                  | 11    | 12    | 23    |
| 06:30      |                  | 10    | 16    | 26    |
| 06:45      |                  | 19    | 24    | 43    |
| 07:00      |                  | 27    | 32    | 59    |
| 07:15      |                  | 30    | 29    | 59    |
| 07:30      |                  | 42    | 32    | 74    |
| 07:45      |                  | 33    | 44    | 77    |
| 08:00      |                  | 44    | 43    | 87    |
| 08:15      |                  | 40    | 37    | 77    |
| 08:30      |                  | 34    | 33    | 67    |
| 08:45      |                  | 36    | 26    | 62    |
| 09:00      |                  | 35    | 29    | 64    |
| 09:15      |                  | 40    | 43    | 83    |
| 09:30      |                  | 29    | 37    | 66    |
| 09:45      |                  | 40    | 41    | 81    |
| 10:00      |                  | 30    | 35    | 65    |
| 10:15      |                  | 38    | 53    | 91    |
| 10:30      |                  | 40    | 36    | 76    |
| 10:45      |                  | 44    | 37    | 81    |
| 11:00      |                  | 51    | 42    | 93    |
| 11:15      |                  | 45    | 35    | 80    |
| 11:30      |                  | 61    | 68    | 129   |
| 11:45      |                  | 56    | 45    | 101   |
| Total      |                  | 938   | 923   | 1861  |
| Percent    |                  | 50.4% | 49.6% |       |
| Peak       | -                | 11:00 | 11:00 | 11:00 |
| Vol.       | -                | 213   | 190   | 403   |
| P.H.F.     |                  | 0.873 | 0.699 | 0.781 |

# All Traffic Data Services

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Page 2

Site Code: 1

Station ID: 1

SKELTON ROAD NORTH OF U-HAUL DRIVEWAY

Latitude: 0' 0.0000 Undefined

Longitude: 0' 0.0000 Undefined

| Start Time  | 25-Aug-21<br>Wed | NB    | SB    | Total |
|-------------|------------------|-------|-------|-------|
| 12:00 PM    |                  | 72    | 47    | 119   |
| 12:15       |                  | 70    | 70    | 140   |
| 12:30       |                  | 77    | 70    | 147   |
| 12:45       |                  | 72    | 80    | 152   |
| 01:00       |                  | 49    | 63    | 112   |
| 01:15       |                  | 56    | 56    | 112   |
| 01:30       |                  | 64    | 59    | 123   |
| 01:45       |                  | 54    | 63    | 117   |
| 02:00       |                  | 52    | 54    | 106   |
| 02:15       |                  | 69    | 68    | 137   |
| 02:30       |                  | 70    | 72    | 142   |
| 02:45       |                  | 48    | 64    | 112   |
| 03:00       |                  | 42    | 65    | 107   |
| 03:15       |                  | 71    | 59    | 130   |
| 03:30       |                  | 62    | 76    | 138   |
| 03:45       |                  | 73    | 82    | 155   |
| 04:00       |                  | 54    | 80    | 134   |
| 04:15       |                  | 76    | 72    | 148   |
| 04:30       |                  | 67    | 67    | 134   |
| 04:45       |                  | 87    | 64    | 151   |
| 05:00       |                  | 66    | 61    | 127   |
| 05:15       |                  | 91    | 60    | 151   |
| 05:30       |                  | 99    | 89    | 188   |
| 05:45       |                  | 64    | 90    | 154   |
| 06:00       |                  | 83    | 78    | 161   |
| 06:15       |                  | 70    | 71    | 141   |
| 06:30       |                  | 68    | 72    | 140   |
| 06:45       |                  | 77    | 57    | 134   |
| 07:00       |                  | 58    | 66    | 124   |
| 07:15       |                  | 56    | 51    | 107   |
| 07:30       |                  | 40    | 60    | 100   |
| 07:45       |                  | 43    | 46    | 89    |
| 08:00       |                  | 52    | 58    | 110   |
| 08:15       |                  | 49    | 66    | 115   |
| 08:30       |                  | 43    | 41    | 84    |
| 08:45       |                  | 25    | 32    | 57    |
| 09:00       |                  | 23    | 44    | 67    |
| 09:15       |                  | 25    | 32    | 57    |
| 09:30       |                  | 17    | 29    | 46    |
| 09:45       |                  | 17    | 26    | 43    |
| 10:00       |                  | 21    | 34    | 55    |
| 10:15       |                  | 23    | 21    | 44    |
| 10:30       |                  | 6     | 16    | 22    |
| 10:45       |                  | 13    | 8     | 21    |
| 11:00       |                  | 8     | 7     | 15    |
| 11:15       |                  | 10    | 10    | 20    |
| 11:30       |                  | 8     | 7     | 15    |
| 11:45       |                  | 2     | 4     | 6     |
| Total       |                  | 2442  | 2567  | 5009  |
| Percent     |                  | 48.8% | 51.2% |       |
| Peak        | -                | 16:45 | 17:30 | 17:15 |
| Vol.        | -                | 343   | 328   | 654   |
| P.H.F.      |                  | 0.866 | 0.911 | 0.870 |
| Grand Total |                  | 3380  | 3490  | 6870  |
| Percent     |                  | 49.2% | 50.8% |       |



ADT

ADT 6,870

AADT 6,870

# All Traffic Data Services

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Page 1

Site Code: 2

Station ID: 2

PEARL NIX PKWY SOUTH OF SHALLOWFORD ROAD

Latitude: 0' 0.0000 Undefined

Longitude: 0' 0.0000 Undefined

| Start Time | 25-Aug-21<br>Wed | NB    | SB    | Total |
|------------|------------------|-------|-------|-------|
| 12:00 AM   |                  | 12    | 5     | 17    |
| 12:15      |                  | 9     | 6     | 15    |
| 12:30      |                  | 3     | 8     | 11    |
| 12:45      |                  | 3     | 8     | 11    |
| 01:00      |                  | 6     | 6     | 12    |
| 01:15      |                  | 4     | 4     | 8     |
| 01:30      |                  | 3     | 8     | 11    |
| 01:45      |                  | 4     | 2     | 6     |
| 02:00      |                  | 5     | 7     | 12    |
| 02:15      |                  | 4     | 7     | 11    |
| 02:30      |                  | 9     | 3     | 12    |
| 02:45      |                  | 6     | 0     | 6     |
| 03:00      |                  | 10    | 2     | 12    |
| 03:15      |                  | 2     | 7     | 9     |
| 03:30      |                  | 2     | 2     | 4     |
| 03:45      |                  | 5     | 4     | 9     |
| 04:00      |                  | 10    | 4     | 14    |
| 04:15      |                  | 6     | 8     | 14    |
| 04:30      |                  | 16    | 8     | 24    |
| 04:45      |                  | 8     | 12    | 20    |
| 05:00      |                  | 9     | 12    | 21    |
| 05:15      |                  | 25    | 13    | 38    |
| 05:30      |                  | 9     | 24    | 33    |
| 05:45      |                  | 32    | 26    | 58    |
| 06:00      |                  | 33    | 32    | 65    |
| 06:15      |                  | 21    | 25    | 46    |
| 06:30      |                  | 30    | 40    | 70    |
| 06:45      |                  | 42    | 50    | 92    |
| 07:00      |                  | 50    | 63    | 113   |
| 07:15      |                  | 78    | 82    | 160   |
| 07:30      |                  | 74    | 76    | 150   |
| 07:45      |                  | 99    | 110   | 209   |
| 08:00      |                  | 106   | 94    | 200   |
| 08:15      |                  | 98    | 110   | 208   |
| 08:30      |                  | 88    | 92    | 180   |
| 08:45      |                  | 74    | 78    | 152   |
| 09:00      |                  | 88    | 84    | 172   |
| 09:15      |                  | 84    | 82    | 166   |
| 09:30      |                  | 90    | 86    | 176   |
| 09:45      |                  | 100   | 71    | 171   |
| 10:00      |                  | 70    | 94    | 164   |
| 10:15      |                  | 76    | 96    | 172   |
| 10:30      |                  | 86    | 134   | 220   |
| 10:45      |                  | 107   | 99    | 206   |
| 11:00      |                  | 108   | 122   | 230   |
| 11:15      |                  | 140   | 135   | 275   |
| 11:30      |                  | 132   | 154   | 286   |
| 11:45      |                  | 160   | 172   | 332   |
| Total      |                  | 2236  | 2367  | 4603  |
| Percent    |                  | 48.6% | 51.4% |       |
| Peak       | -                | 11:00 | 11:00 | 11:00 |
| Vol.       | -                | 540   | 583   | 1123  |
| P.H.F.     |                  | 0.844 | 0.847 | 0.846 |

# All Traffic Data Services

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Page 2

Site Code: 2

Station ID: 2

PEARL NIX PKWY SOUTH OF SHALLOWFORD ROAD

Latitude: 0' 0.0000 Undefined

Longitude: 0' 0.0000 Undefined

| Start Time  | 25-Aug-21<br>Wed | NB    | SB    | Total |
|-------------|------------------|-------|-------|-------|
| 12:00 PM    |                  | 156   | 140   | 296   |
| 12:15       |                  | 128   | 160   | 288   |
| 12:30       |                  | 157   | 210   | 367   |
| 12:45       |                  | 127   | 182   | 309   |
| 01:00       |                  | 136   | 156   | 292   |
| 01:15       |                  | 124   | 182   | 306   |
| 01:30       |                  | 130   | 168   | 298   |
| 01:45       |                  | 128   | 174   | 302   |
| 02:00       |                  | 134   | 155   | 289   |
| 02:15       |                  | 86    | 172   | 258   |
| 02:30       |                  | 124   | 150   | 274   |
| 02:45       |                  | 116   | 166   | 282   |
| 03:00       |                  | 120   | 156   | 276   |
| 03:15       |                  | 116   | 154   | 270   |
| 03:30       |                  | 120   | 217   | 337   |
| 03:45       |                  | 134   | 156   | 290   |
| 04:00       |                  | 148   | 152   | 300   |
| 04:15       |                  | 120   | 148   | 268   |
| 04:30       |                  | 131   | 187   | 318   |
| 04:45       |                  | 148   | 136   | 284   |
| 05:00       |                  | 161   | 182   | 343   |
| 05:15       |                  | 160   | 184   | 344   |
| 05:30       |                  | 131   | 164   | 295   |
| 05:45       |                  | 140   | 146   | 286   |
| 06:00       |                  | 104   | 160   | 264   |
| 06:15       |                  | 121   | 168   | 289   |
| 06:30       |                  | 111   | 154   | 265   |
| 06:45       |                  | 112   | 141   | 253   |
| 07:00       |                  | 122   | 150   | 272   |
| 07:15       |                  | 112   | 151   | 263   |
| 07:30       |                  | 73    | 134   | 207   |
| 07:45       |                  | 88    | 105   | 193   |
| 08:00       |                  | 95    | 106   | 201   |
| 08:15       |                  | 102   | 106   | 208   |
| 08:30       |                  | 66    | 116   | 182   |
| 08:45       |                  | 57    | 112   | 169   |
| 09:00       |                  | 50    | 78    | 128   |
| 09:15       |                  | 44    | 74    | 118   |
| 09:30       |                  | 37    | 72    | 109   |
| 09:45       |                  | 34    | 60    | 94    |
| 10:00       |                  | 28    | 46    | 74    |
| 10:15       |                  | 27    | 28    | 55    |
| 10:30       |                  | 22    | 34    | 56    |
| 10:45       |                  | 12    | 26    | 38    |
| 11:00       |                  | 16    | 25    | 41    |
| 11:15       |                  | 14    | 26    | 40    |
| 11:30       |                  | 6     | 15    | 21    |
| 11:45       |                  | 7     | 9     | 16    |
| Total       |                  | 4635  | 6093  | 10728 |
| Percent     |                  | 43.2% | 56.8% |       |
| Peak        | -                | 16:30 | 12:30 | 16:30 |
| Vol.        | -                | 600   | 730   | 1289  |
| P.H.F.      |                  | 0.932 | 0.869 | 0.937 |
| Grand Total |                  | 6871  | 8460  | 15331 |
| Percent     |                  | 44.8% | 55.2% |       |

ADT

ADT 15,331

AADT 15,331

# All Traffic Data Services

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Page 1

Site Code: 3

Station ID: 3

SHALLOWFORD ROAD EAST OF SKELTON ROAD

Latitude: 0' 0.0000 Undefined

Longitude: 0' 0.0000 Undefined

| Start Time | 25-Aug-21<br>Wed | EB    | WB    | Total |
|------------|------------------|-------|-------|-------|
| 12:00 AM   |                  | 5     | 7     | 12    |
| 12:15      |                  | 7     | 4     | 11    |
| 12:30      |                  | 8     | 3     | 11    |
| 12:45      |                  | 6     | 3     | 9     |
| 01:00      |                  | 4     | 4     | 8     |
| 01:15      |                  | 8     | 1     | 9     |
| 01:30      |                  | 2     | 4     | 6     |
| 01:45      |                  | 4     | 2     | 6     |
| 02:00      |                  | 4     | 4     | 8     |
| 02:15      |                  | 6     | 7     | 13    |
| 02:30      |                  | 2     | 3     | 5     |
| 02:45      |                  | 1     | 5     | 6     |
| 03:00      |                  | 3     | 6     | 9     |
| 03:15      |                  | 3     | 3     | 6     |
| 03:30      |                  | 2     | 5     | 7     |
| 03:45      |                  | 4     | 7     | 11    |
| 04:00      |                  | 5     | 4     | 9     |
| 04:15      |                  | 6     | 6     | 12    |
| 04:30      |                  | 6     | 7     | 13    |
| 04:45      |                  | 10    | 8     | 18    |
| 05:00      |                  | 11    | 4     | 15    |
| 05:15      |                  | 9     | 13    | 22    |
| 05:30      |                  | 24    | 9     | 33    |
| 05:45      |                  | 19    | 15    | 34    |
| 06:00      |                  | 32    | 21    | 53    |
| 06:15      |                  | 19    | 18    | 37    |
| 06:30      |                  | 32    | 18    | 50    |
| 06:45      |                  | 29    | 26    | 55    |
| 07:00      |                  | 58    | 36    | 94    |
| 07:15      |                  | 76    | 41    | 117   |
| 07:30      |                  | 64    | 42    | 106   |
| 07:45      |                  | 75    | 52    | 127   |
| 08:00      |                  | 79    | 67    | 146   |
| 08:15      |                  | 81    | 69    | 150   |
| 08:30      |                  | 64    | 56    | 120   |
| 08:45      |                  | 73    | 46    | 119   |
| 09:00      |                  | 71    | 69    | 140   |
| 09:15      |                  | 87    | 71    | 158   |
| 09:30      |                  | 81    | 93    | 174   |
| 09:45      |                  | 103   | 92    | 195   |
| 10:00      |                  | 97    | 87    | 184   |
| 10:15      |                  | 106   | 92    | 198   |
| 10:30      |                  | 142   | 86    | 228   |
| 10:45      |                  | 100   | 114   | 214   |
| 11:00      |                  | 132   | 109   | 241   |
| 11:15      |                  | 137   | 113   | 250   |
| 11:30      |                  | 149   | 134   | 283   |
| 11:45      |                  | 158   | 146   | 304   |
| Total      |                  | 2204  | 1832  | 4036  |
| Percent    |                  | 54.6% | 45.4% |       |
| Peak       | -                | 11:00 | 11:00 | 11:00 |
| Vol.       | -                | 576   | 502   | 1078  |
| P.H.F.     |                  | 0.911 | 0.860 | 0.887 |



# All Traffic Data Services

[www.alltrafficdata.net](http://www.alltrafficdata.net)

Page 2

Site Code: 3

Station ID: 3

SHALLOWFORD ROAD EAST OF SKELTON ROAD

Latitude: 0' 0.0000 Undefined

Longitude: 0' 0.0000 Undefined

| Start Time  | 25-Aug-21<br>Wed | EB    | WB    | Total |
|-------------|------------------|-------|-------|-------|
| 12:00 PM    |                  | 151   | 140   | 291   |
| 12:15       |                  | 165   | 146   | 311   |
| 12:30       |                  | 186   | 130   | 316   |
| 12:45       |                  | 160   | 133   | 293   |
| 01:00       |                  | 171   | 123   | 294   |
| 01:15       |                  | 152   | 119   | 271   |
| 01:30       |                  | 181   | 124   | 305   |
| 01:45       |                  | 166   | 122   | 288   |
| 02:00       |                  | 153   | 120   | 273   |
| 02:15       |                  | 158   | 118   | 276   |
| 02:30       |                  | 143   | 113   | 256   |
| 02:45       |                  | 148   | 117   | 265   |
| 03:00       |                  | 146   | 123   | 269   |
| 03:15       |                  | 137   | 119   | 256   |
| 03:30       |                  | 151   | 131   | 282   |
| 03:45       |                  | 140   | 128   | 268   |
| 04:00       |                  | 148   | 126   | 274   |
| 04:15       |                  | 154   | 124   | 278   |
| 04:30       |                  | 144   | 118   | 262   |
| 04:45       |                  | 149   | 133   | 282   |
| 05:00       |                  | 169   | 135   | 304   |
| 05:15       |                  | 154   | 142   | 296   |
| 05:30       |                  | 155   | 138   | 293   |
| 05:45       |                  | 133   | 119   | 252   |
| 06:00       |                  | 169   | 112   | 281   |
| 06:15       |                  | 144   | 134   | 278   |
| 06:30       |                  | 149   | 98    | 247   |
| 06:45       |                  | 135   | 105   | 240   |
| 07:00       |                  | 210   | 107   | 317   |
| 07:15       |                  | 137   | 97    | 234   |
| 07:30       |                  | 109   | 83    | 192   |
| 07:45       |                  | 104   | 76    | 180   |
| 08:00       |                  | 112   | 87    | 199   |
| 08:15       |                  | 102   | 100   | 202   |
| 08:30       |                  | 115   | 68    | 183   |
| 08:45       |                  | 90    | 59    | 149   |
| 09:00       |                  | 81    | 53    | 134   |
| 09:15       |                  | 61    | 48    | 109   |
| 09:30       |                  | 57    | 54    | 111   |
| 09:45       |                  | 63    | 35    | 98    |
| 10:00       |                  | 44    | 36    | 80    |
| 10:15       |                  | 44    | 27    | 71    |
| 10:30       |                  | 33    | 25    | 58    |
| 10:45       |                  | 35    | 12    | 47    |
| 11:00       |                  | 26    | 12    | 38    |
| 11:15       |                  | 26    | 16    | 42    |
| 11:30       |                  | 10    | 6     | 16    |
| 11:45       |                  | 4     | 6     | 10    |
| Total       |                  | 5774  | 4497  | 10271 |
| Percent     |                  | 56.2% | 43.8% |       |
| Peak        | -                | 12:15 | 12:00 | 12:15 |
| Vol.        | -                | 682   | 549   | 1214  |
| P.H.F.      |                  | 0.917 | 0.940 | 0.960 |
| Grand Total |                  | 7978  | 6329  | 14307 |
| Percent     |                  | 55.8% | 44.2% |       |

ADT

ADT 14,307

AADT 14,307

## APPENDIX C – COVID-19 ADJUSTMENT FACTORS

### COVID-19 Adjustment Factors

| ADT Location                                 | 2018/2019 Count Data<br>(pre-COVID) <sup>1</sup> | Estimated 2021<br>Count Data <sup>2</sup> | 2021 Count Data<br>(post-COVID) <sup>3</sup> | COVID<br>Adj. Factor |
|----------------------------------------------|--------------------------------------------------|-------------------------------------------|----------------------------------------------|----------------------|
| Pearl Nix Parkway, south of Shallowford Road | 15928                                            | 16562                                     | 15331                                        | 1.08                 |
| Shallowford Road, east of Skelton Road       | 15496                                            | 16113                                     | 14307                                        | 1.13                 |
| Skelton Road, south of Shalloword Road       | 6186                                             | 6229                                      | 6870                                         | 0.91                 |

<sup>1</sup>Pre-COVID count data was obtained from the GDOT Traffic Analysis and Data Application (TADA) and is based on ADT data from 2018.

<sup>2</sup>Estimated 2021 count data is based on a 1.3% growth rate as determined from historical count data obtained from TADA.

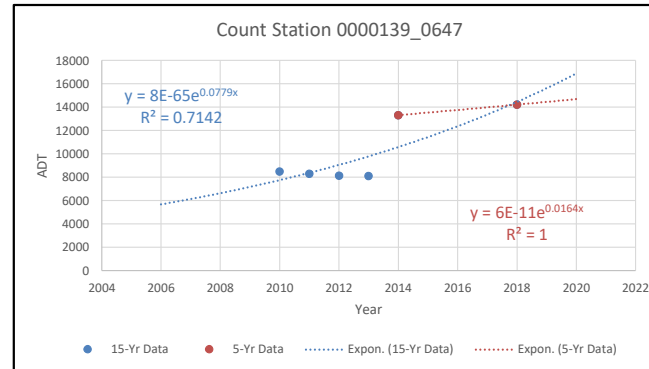
<sup>3</sup>Post-COVID count data consists of the 24-Hour Bi-Directional tube counts collected as part of this project.

## APPENDIX D – GROWTH RATE CALCULATIONS

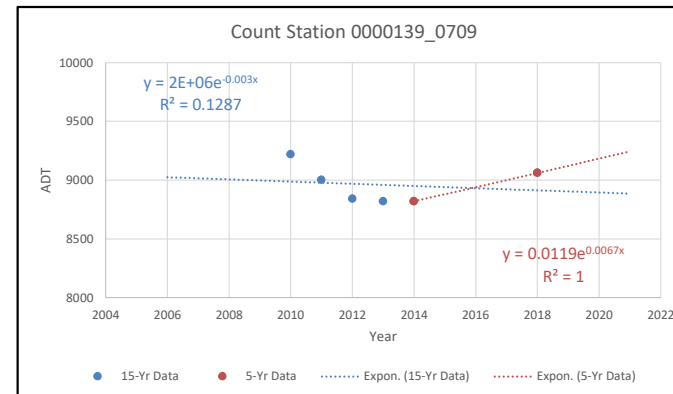


# Growth Rate Calculations

|                           |                                       |       |       |
|---------------------------|---------------------------------------|-------|-------|
| Count Station #           | 0000139_0647                          |       |       |
| Count Station Description | On Shallowford Rd, east of Skelton Rd |       |       |
| Functional Classification | Minor Arterial - (Urban)              |       |       |
| Years                     | ADT                                   | AADT  | Notes |
| 2006                      |                                       |       |       |
| 2007                      |                                       |       |       |
| 2008                      |                                       |       |       |
| 2009                      |                                       |       |       |
| 2010                      |                                       | 8480  |       |
| 2011                      |                                       | 8280  |       |
| 2012                      |                                       | 8140  |       |
| 2013                      |                                       | 8090  |       |
| 2014                      | 14580                                 | 13300 |       |
| 2015                      |                                       |       |       |
| 2016                      |                                       |       |       |
| 2017                      |                                       |       |       |
| 2018                      | 15496                                 | 14200 |       |
| 2019                      |                                       |       |       |
| 2020                      |                                       |       |       |
| 3 2021 (Anticipated)      | 16113                                 |       |       |

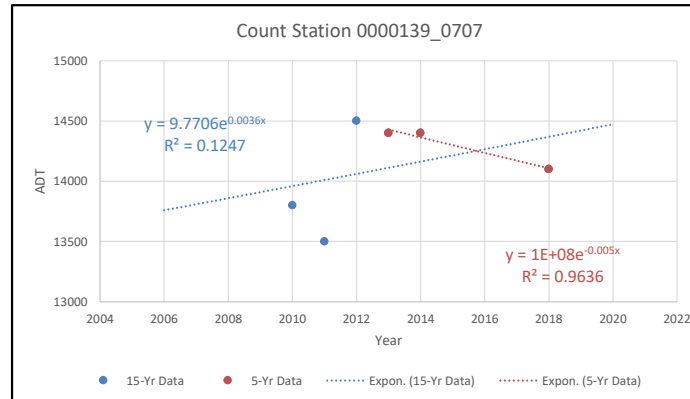


|                           |                                       |      |       |
|---------------------------|---------------------------------------|------|-------|
| Count Station #           | 0000139_0709                          |      |       |
| Count Station Description | On Pearl Nix, north of Shallowford Rd |      |       |
| Functional Classification | Minor Arterial - (Urban)              |      |       |
| Years                     | ADT                                   | AADT | Notes |
| 2006                      |                                       |      |       |
| 2007                      |                                       |      |       |
| 2008                      |                                       |      |       |
| 2009                      |                                       |      |       |
| 2010                      |                                       | 9220 |       |
| 2011                      |                                       | 9000 |       |
| 2012                      |                                       | 8840 |       |
| 2013                      | 9512                                  | 8820 |       |
| 2014                      |                                       | 8820 |       |
| 2015                      |                                       |      |       |
| 2016                      | 9054                                  |      | 8680  |
| 2017                      |                                       |      |       |
| 2018                      | 10234                                 | 9060 |       |
| 2019                      |                                       |      |       |
| 2020                      | 7799                                  |      |       |
| 2021                      |                                       |      |       |
| 3 2021 (Anticipated)      | 10641                                 |      |       |

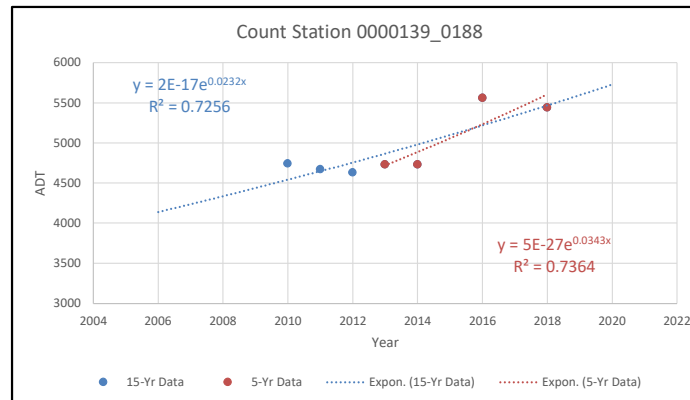


# Growth Rate Calculations

|                           |                                       |       |       |
|---------------------------|---------------------------------------|-------|-------|
| Count Station #           | 0000139_0707                          |       |       |
| Count Station Description | On Pearl Nix, south of Shallowford Rd |       |       |
| Functional Classification | Minor Arterial - (Urban)              |       |       |
| Years                     | ADT                                   | AADT  | Notes |
| 2006                      |                                       |       |       |
| 2007                      |                                       |       |       |
| 2008                      |                                       |       |       |
| 2009                      |                                       |       |       |
| 2010                      |                                       | 13800 |       |
| 2011                      |                                       | 13500 |       |
| 2012                      | 16952                                 | 14500 |       |
| 2013                      |                                       | 14400 |       |
| 2014                      |                                       | 14400 |       |
| 2015                      |                                       |       |       |
| 2016                      |                                       |       |       |
| 2017                      |                                       |       |       |
| 2018                      | 15928                                 | 14100 |       |
| 2019                      |                                       |       |       |
| 2020                      |                                       |       |       |
|                           |                                       |       |       |
|                           |                                       |       |       |
| 3 2021 (Anticipated)      | 16562                                 |       |       |



|                           |                              |      |       |
|---------------------------|------------------------------|------|-------|
| Count Station #           | 0000139_0188                 |      |       |
| Count Station Description | On Skelton Rd, south of site |      |       |
| Functional Classification | Minor Collector - (Urban)    |      |       |
| Years                     | ADT                          | AADT | Notes |
| 2006                      |                              |      |       |
| 2007                      |                              |      |       |
| 2008                      |                              |      |       |
| 2009                      |                              |      |       |
| 2010                      |                              | 4740 |       |
| 2011                      |                              | 4670 |       |
| 2012                      | 5106                         | 4630 |       |
| 2013                      |                              | 4730 |       |
| 2014                      |                              | 4730 |       |
| 2015                      |                              |      |       |
| 2016                      | 5810                         | 5560 |       |
| 2017                      |                              |      |       |
| 2018                      | 5990                         | 5440 |       |
| 2019                      | 6186                         |      |       |
| 2020                      |                              |      |       |
|                           |                              |      |       |
|                           |                              |      |       |
| 3 2021 (Anticipated)      | 6229                         |      |       |



# APPENDIX E – EXISTING YEAR 2021 OPERATIONAL ANALYSIS REPORTS

# HCS7 Two-Way Stop-Control Report

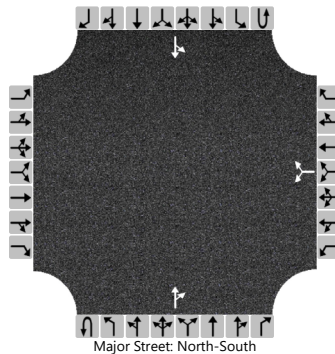
## General Information

|                          |               |
|--------------------------|---------------|
| Analyst                  | A. Simmons    |
| Agency/Co.               | Keck & Wood   |
| Date Performed           | 8/31/2021     |
| Analysis Year            | 2021          |
| Time Analyzed            | AM Peak       |
| Intersection Orientation | North-South   |
| Project Description      | Existing 2021 |

## Site Information

|                            |                         |
|----------------------------|-------------------------|
| Intersection               | Skelton Rd @ U-Haul Dwy |
| Jurisdiction               | City of Gainesville     |
| East/West Street           | U-Haul Dwy              |
| North/South Street         | Skelton Rd              |
| Peak Hour Factor           | 0.87                    |
| Analysis Time Period (hrs) | 0.25                    |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |    |    | Westbound |   |    |   | Northbound |   |     |    | Southbound |    |     |   |
|----------------------------|-----------|----|----|----|-----------|---|----|---|------------|---|-----|----|------------|----|-----|---|
| Movement                   | U         | L  | T  | R  | U         | L | T  | R | U          | L | T   | R  | U          | L  | T   | R |
| Priority                   |           | 10 | 11 | 12 |           | 7 | 8  | 9 | 1U         | 1 | 2   | 3  | 4U         | 4  | 5   | 6 |
| Number of Lanes            |           | 0  | 0  | 0  |           | 0 | 1  | 0 | 0          | 0 | 1   | 0  | 0          | 0  | 1   | 0 |
| Configuration              |           |    |    |    |           |   | LR |   |            |   |     | TR |            | LT |     |   |
| Volume (veh/h)             |           |    |    |    |           | 0 |    | 0 |            |   | 130 | 0  |            | 0  | 133 |   |
| Percent Heavy Vehicles (%) |           |    |    |    |           | 2 |    | 2 |            |   |     |    |            | 2  |     |   |
| Proportion Time Blocked    |           |    |    |    |           |   |    |   |            |   |     |    |            |    |     |   |
| Percent Grade (%)          |           |    |    |    | 0         |   |    |   |            |   |     |    |            |    |     |   |
| Right Turn Channelized     |           |    |    |    |           |   |    |   |            |   |     |    |            |    |     |   |
| Median Type   Storage      | Undivided |    |    |    |           |   |    |   |            |   |     |    |            |    |     |   |

## Critical and Follow-up Headways

|                              |  |  |  |  |  |      |  |      |  |  |  |  |  |      |  |  |
|------------------------------|--|--|--|--|--|------|--|------|--|--|--|--|--|------|--|--|
| Base Critical Headway (sec)  |  |  |  |  |  | 7.1  |  | 6.2  |  |  |  |  |  | 4.1  |  |  |
| Critical Headway (sec)       |  |  |  |  |  | 6.42 |  | 6.22 |  |  |  |  |  | 4.12 |  |  |
| Base Follow-Up Headway (sec) |  |  |  |  |  | 3.5  |  | 3.3  |  |  |  |  |  | 2.2  |  |  |
| Follow-Up Headway (sec)      |  |  |  |  |  | 3.52 |  | 3.32 |  |  |  |  |  | 2.22 |  |  |

## Delay, Queue Length, and Level of Service

|                                         |  |  |  |  |  |   |  |  |  |  |  |  |     |      |  |  |
|-----------------------------------------|--|--|--|--|--|---|--|--|--|--|--|--|-----|------|--|--|
| Flow Rate, v (veh/h)                    |  |  |  |  |  | 0 |  |  |  |  |  |  |     | 0    |  |  |
| Capacity, c (veh/h)                     |  |  |  |  |  |   |  |  |  |  |  |  |     | 1432 |  |  |
| v/c Ratio                               |  |  |  |  |  |   |  |  |  |  |  |  |     | 0.00 |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |  |  |  |  |  |   |  |  |  |  |  |  |     | 0.0  |  |  |
| Control Delay (s/veh)                   |  |  |  |  |  |   |  |  |  |  |  |  |     | 7.5  |  |  |
| Level of Service (LOS)                  |  |  |  |  |  |   |  |  |  |  |  |  |     | A    |  |  |
| Approach Delay (s/veh)                  |  |  |  |  |  |   |  |  |  |  |  |  | 0.0 |      |  |  |
| Approach LOS                            |  |  |  |  |  |   |  |  |  |  |  |  |     |      |  |  |

Existing 2021 - AM.syn  
2: Skelton Rd & Shallowford Rd

|                         |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | SET                                                                               | NWL                                                                               | NWT                                                                               | NEL                                                                               | NER                                                                               |
| Lane Group Flow (vph)   | 343                                                                               | 81                                                                                | 125                                                                               | 66                                                                                | 113                                                                               |
| v/c Ratio               | 0.14                                                                              | 0.10                                                                              | 0.04                                                                              | 0.43                                                                              | 0.30                                                                              |
| Control Delay           | 4.3                                                                               | 3.2                                                                               | 2.6                                                                               | 55.7                                                                              | 8.4                                                                               |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |
| Total Delay             | 4.3                                                                               | 3.2                                                                               | 2.6                                                                               | 55.7                                                                              | 8.4                                                                               |
| Queue Length 50th (ft)  | 25                                                                                | 10                                                                                | 7                                                                                 | 45                                                                                | 0                                                                                 |
| Queue Length 95th (ft)  | 42                                                                                | 21                                                                                | 15                                                                                | 80                                                                                | 35                                                                                |
| Internal Link Dist (ft) | 866                                                                               |                                                                                   | 1660                                                                              | 296                                                                               |                                                                                   |
| Turn Bay Length (ft)    |                                                                                   | 80                                                                                |                                                                                   |                                                                                   | 250                                                                               |
| Base Capacity (vph)     | 2369                                                                              | 956                                                                               | 2931                                                                              | 455                                                                               | 543                                                                               |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Reduced v/c Ratio       | 0.14                                                                              | 0.08                                                                              | 0.04                                                                              | 0.15                                                                              | 0.21                                                                              |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |



Existing 2021 - AM.syn  
2: Skelton Rd & Shallowford Rd

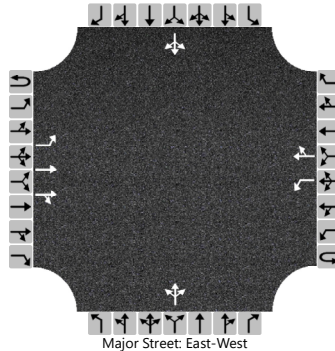
|                                   |  |  |  |  |  |  |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Movement                          | SET                                                                               | SER                                                                               | NWL                                                                               | NWT                                                                               | NEL                                                                               | NER                                                                               |
| Lane Configurations               | ↑↑                                                                                |                                                                                   | ↵                                                                                 | ↑↑                                                                                | ↵                                                                                 | ↵                                                                                 |
| Traffic Volume (vph)              | 179                                                                               | 105                                                                               | 67                                                                                | 104                                                                               | 55                                                                                | 94                                                                                |
| Future Volume (vph)               | 179                                                                               | 105                                                                               | 67                                                                                | 104                                                                               | 55                                                                                | 94                                                                                |
| Ideal Flow (vphpl)                | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              |
| Total Lost time (s)               | 6.5                                                                               |                                                                                   | 6.5                                                                               | 6.5                                                                               | 6.7                                                                               | 6.5                                                                               |
| Lane Util. Factor                 | 0.95                                                                              |                                                                                   | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                              |
| Frt                               | 0.94                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.85                                                                              |
| Flt Protected                     | 1.00                                                                              |                                                                                   | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              |
| Satd. Flow (prot)                 | 3343                                                                              |                                                                                   | 1770                                                                              | 3539                                                                              | 1770                                                                              | 1583                                                                              |
| Flt Permitted                     | 1.00                                                                              |                                                                                   | 0.55                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              |
| Satd. Flow (perm)                 | 3343                                                                              |                                                                                   | 1016                                                                              | 3539                                                                              | 1770                                                                              | 1583                                                                              |
| Peak-hour factor, PHF             | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              |
| Adj. Flow (vph)                   | 216                                                                               | 127                                                                               | 81                                                                                | 125                                                                               | 66                                                                                | 113                                                                               |
| RTOR Reduction (vph)              | 40                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 98                                                                                |
| Lane Group Flow (vph)             | 303                                                                               | 0                                                                                 | 81                                                                                | 125                                                                               | 66                                                                                | 15                                                                                |
| Turn Type                         | NA                                                                                |                                                                                   | D.P+P                                                                             | NA                                                                                | Prot                                                                              | pm+ov                                                                             |
| Protected Phases                  | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 | 4                                                                                 | 1                                                                                 |
| Permitted Phases                  |                                                                                   |                                                                                   | 2                                                                                 |                                                                                   |                                                                                   | 4                                                                                 |
| Actuated Green, G (s)             | 75.4                                                                              |                                                                                   | 82.0                                                                              | 88.5                                                                              | 8.3                                                                               | 14.9                                                                              |
| Effective Green, g (s)            | 75.4                                                                              |                                                                                   | 82.0                                                                              | 88.5                                                                              | 8.3                                                                               | 14.9                                                                              |
| Actuated g/C Ratio                | 0.69                                                                              |                                                                                   | 0.75                                                                              | 0.80                                                                              | 0.08                                                                              | 0.14                                                                              |
| Clearance Time (s)                | 6.5                                                                               |                                                                                   | 6.5                                                                               | 6.5                                                                               | 6.7                                                                               | 6.5                                                                               |
| Vehicle Extension (s)             | 6.0                                                                               |                                                                                   | 3.0                                                                               | 6.0                                                                               | 3.0                                                                               | 3.0                                                                               |
| Lane Grp Cap (vph)                | 2291                                                                              |                                                                                   | 802                                                                               | 2847                                                                              | 133                                                                               | 214                                                                               |
| v/s Ratio Prot                    | c0.09                                                                             |                                                                                   | c0.01                                                                             | 0.04                                                                              | c0.04                                                                             | 0.00                                                                              |
| v/s Ratio Perm                    |                                                                                   |                                                                                   | 0.07                                                                              |                                                                                   |                                                                                   | 0.01                                                                              |
| v/c Ratio                         | 0.13                                                                              |                                                                                   | 0.10                                                                              | 0.04                                                                              | 0.50                                                                              | 0.07                                                                              |
| Uniform Delay, d1                 | 6.0                                                                               |                                                                                   | 3.7                                                                               | 2.2                                                                               | 48.8                                                                              | 41.5                                                                              |
| Progression Factor                | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Incremental Delay, d2             | 0.1                                                                               |                                                                                   | 0.1                                                                               | 0.0                                                                               | 2.9                                                                               | 0.1                                                                               |
| Delay (s)                         | 6.1                                                                               |                                                                                   | 3.8                                                                               | 2.2                                                                               | 51.7                                                                              | 41.7                                                                              |
| Level of Service                  | A                                                                                 |                                                                                   | A                                                                                 | A                                                                                 | D                                                                                 | D                                                                                 |
| Approach Delay (s)                | 6.1                                                                               |                                                                                   |                                                                                   | 2.8                                                                               | 45.4                                                                              |                                                                                   |
| Approach LOS                      | A                                                                                 |                                                                                   |                                                                                   | A                                                                                 | D                                                                                 |                                                                                   |
| <b>Intersection Summary</b>       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 2000 Control Delay            |                                                                                   |                                                                                   | 14.8                                                                              |                                                                                   | HCM 2000 Level of Service                                                         | B                                                                                 |
| HCM 2000 Volume to Capacity ratio |                                                                                   |                                                                                   | 0.16                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Actuated Cycle Length (s)         |                                                                                   |                                                                                   | 110.0                                                                             |                                                                                   | Sum of lost time (s)                                                              | 19.7                                                                              |
| Intersection Capacity Utilization |                                                                                   |                                                                                   | 34.8%                                                                             |                                                                                   | ICU Level of Service                                                              | A                                                                                 |
| Analysis Period (min)             |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |
| c Critical Lane Group             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

# HCS7 Two-Way Stop-Control Report

## General Information

|                          |               |                            |                      |
|--------------------------|---------------|----------------------------|----------------------|
| Analyst                  | A. Simmons    | Intersection               | Shallowford @ Albert |
| Agency/Co.               | Keck & Wood   | Jurisdiction               | City of Gainesville  |
| Date Performed           | 8/31/2021     | East/West Street           | Shallowford Rd       |
| Analysis Year            | 2021          | North/South Street         | Albert St            |
| Time Analyzed            | AM Peak       | Peak Hour Factor           | 0.85                 |
| Intersection Orientation | East-West     | Analysis Time Period (hrs) | 0.25                 |
| Project Description      | Existing 2021 |                            |                      |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |    | Westbound |   |     |    | Northbound |   |     |   | Southbound |    |     |    |
|----------------------------|-----------|---|-----|----|-----------|---|-----|----|------------|---|-----|---|------------|----|-----|----|
| Movement                   | U         | L | T   | R  | U         | L | T   | R  | U          | L | T   | R | U          | L  | T   | R  |
| Priority                   | 1U        | 1 | 2   | 3  | 4U        | 4 | 5   | 6  |            | 7 | 8   | 9 |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 1 | 2   | 0  | 0         | 1 | 1   | 0  |            | 0 | 1   | 0 |            | 0  | 1   | 0  |
| Configuration              |           | L | T   | TR |           | L |     | TR |            |   | LTR |   |            |    | LTR |    |
| Volume (veh/h)             |           | 6 | 268 | 0  | 0         | 0 | 184 | 1  |            | 0 | 0   | 0 |            | 0  | 0   | 1  |
| Percent Heavy Vehicles (%) |           | 2 |     |    | 2         | 2 |     |    |            | 2 | 2   | 2 |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |   |     |    |           |   |     |    |            |   |     |   |            |    |     |    |
| Percent Grade (%)          |           |   |     |    |           |   |     |    | 0          |   |     |   | 0          |    |     |    |
| Right Turn Channelized     |           |   |     |    |           |   |     |    |            |   |     |   |            |    |     |    |
| Median Type   Storage      | Undivided |   |     |    |           |   |     |    |            |   |     |   |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.5  | 6.5  | 6.9  |  | 7.5  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.14 |  |  |  | 4.14 |  |  |  | 7.54 | 6.54 | 6.94 |  | 7.54 | 6.54 | 6.24 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |  |  |     |      |  |  |  |  |   |  |     |  |      |  |
|-----------------------------------------|-----|------|--|--|-----|------|--|--|--|--|---|--|-----|--|------|--|
| Flow Rate, v (veh/h)                    |     | 7    |  |  |     | 0    |  |  |  |  | 0 |  |     |  | 1    |  |
| Capacity, c (veh/h)                     |     | 1349 |  |  |     | 1242 |  |  |  |  |   |  |     |  | 821  |  |
| v/c Ratio                               |     | 0.01 |  |  |     | 0.00 |  |  |  |  |   |  |     |  | 0.00 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.0  |  |  |     | 0.0  |  |  |  |  |   |  |     |  | 0.0  |  |
| Control Delay (s/veh)                   |     | 7.7  |  |  |     | 7.9  |  |  |  |  |   |  |     |  | 9.4  |  |
| Level of Service (LOS)                  |     | A    |  |  |     | A    |  |  |  |  |   |  |     |  | A    |  |
| Approach Delay (s/veh)                  | 0.2 |      |  |  | 0.0 |      |  |  |  |  |   |  | 9.4 |  |      |  |
| Approach LOS                            |     |      |  |  |     |      |  |  |  |  |   |  | A   |  |      |  |

# HCS7 Two-Way Stop-Control Report

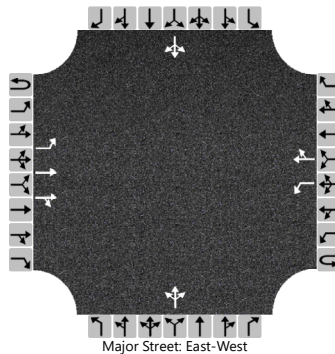
## General Information

|                          |               |
|--------------------------|---------------|
| Analyst                  | A. Simmons    |
| Agency/Co.               | Keck & Wood   |
| Date Performed           | 8/31/2021     |
| Analysis Year            | 2021          |
| Time Analyzed            | AM Peak       |
| Intersection Orientation | East-West     |
| Project Description      | Existing 2021 |

## Site Information

|                            |                           |
|----------------------------|---------------------------|
| Intersection               | Shallowford @ Regions Dwy |
| Jurisdiction               | City of Gainesville       |
| East/West Street           | Shallowford Rd            |
| North/South Street         | Regions Dwy               |
| Peak Hour Factor           | 0.85                      |
| Analysis Time Period (hrs) | 0.25                      |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |    | Westbound |   |     |    | Northbound |   |     |   | Southbound |    |     |    |
|----------------------------|-----------|---|-----|----|-----------|---|-----|----|------------|---|-----|---|------------|----|-----|----|
| Movement                   | U         | L | T   | R  | U         | L | T   | R  | U          | L | T   | R | U          | L  | T   | R  |
| Priority                   | 1U        | 1 | 2   | 3  | 4U        | 4 | 5   | 6  |            | 7 | 8   | 9 |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 1 | 2   | 0  | 0         | 1 | 1   | 0  |            | 0 | 1   | 0 |            | 0  | 1   | 0  |
| Configuration              |           | L | T   | TR |           | L |     | TR |            |   | LTR |   |            |    | LTR |    |
| Volume (veh/h)             |           | 4 | 263 | 2  | 0         | 1 | 177 | 4  |            | 0 | 0   | 0 |            | 4  | 0   | 5  |
| Percent Heavy Vehicles (%) |           | 2 |     |    | 2         | 2 |     |    |            | 2 | 2   | 2 |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |   |     |    |           |   |     |    |            |   |     |   |            |    |     |    |
| Percent Grade (%)          |           |   |     |    |           |   |     |    | 0          |   |     |   | 0          |    |     |    |
| Right Turn Channelized     |           |   |     |    |           |   |     |    |            |   |     |   |            |    |     |    |
| Median Type   Storage      | Undivided |   |     |    |           |   |     |    |            |   |     |   |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.5  | 6.5  | 6.9  |  | 7.5  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.14 |  |  |  | 4.14 |  |  |  | 7.54 | 6.54 | 6.94 |  | 7.54 | 6.54 | 6.24 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

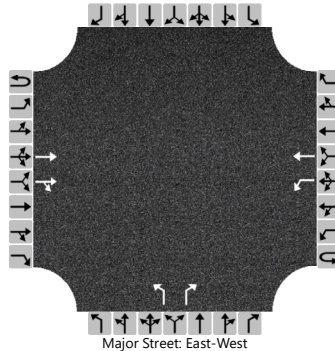
|                                         |     |      |  |  |     |      |  |  |  |  |   |  |      |  |      |  |
|-----------------------------------------|-----|------|--|--|-----|------|--|--|--|--|---|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 5    |  |  |     | 1    |  |  |  |  | 0 |  |      |  | 11   |  |
| Capacity, c (veh/h)                     |     | 1355 |  |  |     | 1245 |  |  |  |  |   |  |      |  | 678  |  |
| v/c Ratio                               |     | 0.00 |  |  |     | 0.00 |  |  |  |  |   |  |      |  | 0.02 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.0  |  |  |     | 0.0  |  |  |  |  |   |  |      |  | 0.0  |  |
| Control Delay (s/veh)                   |     | 7.7  |  |  |     | 7.9  |  |  |  |  |   |  |      |  | 10.4 |  |
| Level of Service (LOS)                  |     | A    |  |  |     | A    |  |  |  |  |   |  |      |  | B    |  |
| Approach Delay (s/veh)                  | 0.1 |      |  |  | 0.0 |      |  |  |  |  |   |  | 10.4 |  |      |  |
| Approach LOS                            |     |      |  |  |     |      |  |  |  |  |   |  | B    |  |      |  |

# HCS7 Two-Way Stop-Control Report

## General Information

|                          |               |                            |                          |
|--------------------------|---------------|----------------------------|--------------------------|
| Analyst                  | A. Simmons    | Intersection               | Shallowford @ Strip Mall |
| Agency/Co.               | Keck & Wood   | Jurisdiction               | City of Gainesville      |
| Date Performed           | 8/31/2021     | East/West Street           | Shallowford Rd           |
| Analysis Year            | 2021          | North/South Street         | Strip Mall (Dwy #3)      |
| Time Analyzed            | AM Peak       | Peak Hour Factor           | 0.85                     |
| Intersection Orientation | East-West     | Analysis Time Period (hrs) | 0.25                     |
| Project Description      | Existing 2021 |                            |                          |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |    | Westbound |   |     |   | Northbound |   |   |   | Southbound |    |    |    |
|----------------------------|-----------|---|-----|----|-----------|---|-----|---|------------|---|---|---|------------|----|----|----|
| Movement                   | U         | L | T   | R  | U         | L | T   | R | U          | L | T | R | U          | L  | T  | R  |
| Priority                   | 1U        | 1 | 2   | 3  | 4U        | 4 | 5   | 6 |            | 7 | 8 | 9 |            | 10 | 11 | 12 |
| Number of Lanes            | 0         | 0 | 2   | 0  | 0         | 1 | 1   | 0 |            | 1 | 0 | 1 |            | 0  | 0  | 0  |
| Configuration              |           |   | T   | TR |           | L | T   |   |            | L |   | R |            |    |    |    |
| Volume (veh/h)             |           |   | 264 | 1  | 0         | 1 | 181 |   |            | 0 |   | 0 |            |    |    |    |
| Percent Heavy Vehicles (%) |           |   |     |    | 2         | 2 |     |   |            | 2 |   | 2 |            |    |    |    |
| Proportion Time Blocked    |           |   |     |    |           |   |     |   |            |   |   |   |            |    |    |    |
| Percent Grade (%)          |           |   |     |    |           |   |     |   | 0          |   |   |   |            |    |    |    |
| Right Turn Channelized     |           |   |     |    |           |   |     |   | No         |   |   |   |            |    |    |    |
| Median Type   Storage      | Undivided |   |     |    |           |   |     |   |            |   |   |   |            |    |    |    |

## Critical and Follow-up Headways

|                              |  |  |  |  |  |      |  |  |  |      |  |      |  |  |  |  |
|------------------------------|--|--|--|--|--|------|--|--|--|------|--|------|--|--|--|--|
| Base Critical Headway (sec)  |  |  |  |  |  | 4.1  |  |  |  | 7.5  |  | 6.9  |  |  |  |  |
| Critical Headway (sec)       |  |  |  |  |  | 4.14 |  |  |  | 6.84 |  | 6.94 |  |  |  |  |
| Base Follow-Up Headway (sec) |  |  |  |  |  | 2.2  |  |  |  | 3.5  |  | 3.3  |  |  |  |  |
| Follow-Up Headway (sec)      |  |  |  |  |  | 2.22 |  |  |  | 3.52 |  | 3.32 |  |  |  |  |

## Delay, Queue Length, and Level of Service

|                                         |  |  |  |  |     |      |  |  |  |      |  |      |  |  |  |  |
|-----------------------------------------|--|--|--|--|-----|------|--|--|--|------|--|------|--|--|--|--|
| Flow Rate, v (veh/h)                    |  |  |  |  |     | 1    |  |  |  | 0    |  | 0    |  |  |  |  |
| Capacity, c (veh/h)                     |  |  |  |  |     | 1245 |  |  |  | 481  |  | 862  |  |  |  |  |
| v/c Ratio                               |  |  |  |  |     | 0.00 |  |  |  | 0.00 |  | 0.00 |  |  |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |  |  |  |  |     | 0.0  |  |  |  | 0.0  |  | 0.0  |  |  |  |  |
| Control Delay (s/veh)                   |  |  |  |  |     | 7.9  |  |  |  | 12.5 |  | 9.2  |  |  |  |  |
| Level of Service (LOS)                  |  |  |  |  |     | A    |  |  |  | B    |  | A    |  |  |  |  |
| Approach Delay (s/veh)                  |  |  |  |  | 0.0 |      |  |  |  |      |  |      |  |  |  |  |
| Approach LOS                            |  |  |  |  |     |      |  |  |  |      |  |      |  |  |  |  |

|                         |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                                | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Group Flow (vph)   | 48                                                                                | 59                                                                                | 212                                                                               | 54                                                                                | 48                                                                                | 134                                                                               | 213                                                                                | 5                                                                                   | 30                                                                                  | 182                                                                                 | 39                                                                                  |
| v/c Ratio               | 0.17                                                                              | 0.14                                                                              | 0.20                                                                              | 0.22                                                                              | 0.12                                                                              | 0.30                                                                              | 0.10                                                                               | 0.01                                                                                | 0.15                                                                                | 0.29                                                                                | 0.08                                                                                |
| Control Delay           | 20.2                                                                              | 21.1                                                                              | 1.2                                                                               | 32.4                                                                              | 0.6                                                                               | 14.6                                                                              | 13.1                                                                               | 0.0                                                                                 | 32.8                                                                                | 27.9                                                                                | 0.3                                                                                 |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Delay             | 20.2                                                                              | 21.1                                                                              | 1.2                                                                               | 32.4                                                                              | 0.6                                                                               | 14.6                                                                              | 13.1                                                                               | 0.0                                                                                 | 32.8                                                                                | 27.9                                                                                | 0.3                                                                                 |
| Queue Length 50th (ft)  | 15                                                                                | 19                                                                                | 0                                                                                 | 22                                                                                | 0                                                                                 | 26                                                                                | 21                                                                                 | 0                                                                                   | 12                                                                                  | 36                                                                                  | 0                                                                                   |
| Queue Length 95th (ft)  | 37                                                                                | 45                                                                                | 14                                                                                | 53                                                                                | 0                                                                                 | 53                                                                                | 56                                                                                 | 0                                                                                   | 36                                                                                  | 66                                                                                  | 0                                                                                   |
| Internal Link Dist (ft) | 1660                                                                              |                                                                                   | 848                                                                               |                                                                                   | 1028                                                                              |                                                                                   |                                                                                    |                                                                                     | 2617                                                                                |                                                                                     |                                                                                     |
| Turn Bay Length (ft)    | 80                                                                                |                                                                                   |                                                                                   | 90                                                                                |                                                                                   | 430                                                                               | 225                                                                                |                                                                                     | 145                                                                                 | 250                                                                                 |                                                                                     |
| Base Capacity (vph)     | 370                                                                               | 885                                                                               | 1536                                                                              | 411                                                                               | 516                                                                               | 1528                                                                              | 3539                                                                               | 1583                                                                                | 261                                                                                 | 1723                                                                                | 883                                                                                 |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Reduced v/c Ratio       | 0.13                                                                              | 0.07                                                                              | 0.14                                                                              | 0.13                                                                              | 0.09                                                                              | 0.09                                                                              | 0.06                                                                               | 0.00                                                                                | 0.11                                                                                | 0.11                                                                                | 0.04                                                                                |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |



## Existing 2021 - AM.syn

## 6: Pearl Nix Pkwy &amp; Shallowford Rd/West End Ave

|                                   |  |  |  |  |  |  |   |  |  |  |  |  |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                          | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations               |  |  |  |                                                                                   |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)              | 40                                                                                | 49                                                                                | 176                                                                               | 0                                                                                 | 45                                                                                | 40                                                                                | 111                                                                                 | 177                                                                                 | 4                                                                                   | 25                                                                                  | 151                                                                                 | 32                                                                                  |
| Future Volume (vph)               | 40                                                                                | 49                                                                                | 176                                                                               | 0                                                                                 | 45                                                                                | 40                                                                                | 111                                                                                 | 177                                                                                 | 4                                                                                   | 25                                                                                  | 151                                                                                 | 32                                                                                  |
| Ideal Flow (vphpl)                | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Total Lost time (s)               | 5.2                                                                               | 7.0                                                                               | 6.3                                                                               |                                                                                   | 7.0                                                                               | 7.0                                                                               | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 |
| Lane Util. Factor                 | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                | 0.95                                                                                | 1.00                                                                                |
| Frt                               | 1.00                                                                              | 1.00                                                                              | 0.85                                                                              |                                                                                   | 1.00                                                                              | 0.85                                                                              | 1.00                                                                                | 1.00                                                                                | 0.85                                                                                | 1.00                                                                                | 1.00                                                                                | 0.85                                                                                |
| Flt Protected                     | 0.95                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                |
| Satd. Flow (prot)                 | 1770                                                                              | 1863                                                                              | 1583                                                                              |                                                                                   | 1863                                                                              | 1583                                                                              | 1770                                                                                | 3539                                                                                | 1583                                                                                | 1770                                                                                | 3539                                                                                | 1583                                                                                |
| Flt Permitted                     | 0.39                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                |
| Satd. Flow (perm)                 | 720                                                                               | 1863                                                                              | 1583                                                                              |                                                                                   | 1863                                                                              | 1583                                                                              | 1770                                                                                | 3539                                                                                | 1583                                                                                | 1770                                                                                | 3539                                                                                | 1583                                                                                |
| Peak-hour factor, PHF             | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              | 0.83                                                                                | 0.83                                                                                | 0.83                                                                                | 0.83                                                                                | 0.83                                                                                | 0.83                                                                                |
| Adj. Flow (vph)                   | 48                                                                                | 59                                                                                | 212                                                                               | 0                                                                                 | 54                                                                                | 48                                                                                | 134                                                                                 | 213                                                                                 | 5                                                                                   | 30                                                                                  | 182                                                                                 | 39                                                                                  |
| RTOR Reduction (vph)              | 0                                                                                 | 0                                                                                 | 111                                                                               | 0                                                                                 | 0                                                                                 | 44                                                                                | 0                                                                                   | 0                                                                                   | 3                                                                                   | 0                                                                                   | 0                                                                                   | 33                                                                                  |
| Lane Group Flow (vph)             | 48                                                                                | 59                                                                                | 101                                                                               | 0                                                                                 | 54                                                                                | 4                                                                                 | 134                                                                                 | 213                                                                                 | 2                                                                                   | 30                                                                                  | 182                                                                                 | 6                                                                                   |
| Turn Type                         | pm+pt                                                                             | NA                                                                                | pm+ov                                                                             |                                                                                   | NA                                                                                | Perm                                                                              | Prot                                                                                | NA                                                                                  | Perm                                                                                | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases                  | 7                                                                                 | 4                                                                                 | 1 10                                                                              |                                                                                   | 8                                                                                 |                                                                                   | 1 10                                                                                | 6                                                                                   |                                                                                     | 5                                                                                   | 2                                                                                   |                                                                                     |
| Permitted Phases                  | 4                                                                                 |                                                                                   | 4                                                                                 | 8                                                                                 |                                                                                   | 8                                                                                 |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 2                                                                                   |
| Actuated Green, G (s)             | 15.0                                                                              | 15.0                                                                              | 34.1                                                                              |                                                                                   | 6.0                                                                               | 6.0                                                                               | 19.1                                                                                | 34.2                                                                                | 34.2                                                                                | 2.6                                                                                 | 11.4                                                                                | 11.4                                                                                |
| Effective Green, g (s)            | 15.0                                                                              | 15.0                                                                              | 34.1                                                                              |                                                                                   | 6.0                                                                               | 6.0                                                                               | 19.1                                                                                | 34.2                                                                                | 34.2                                                                                | 2.6                                                                                 | 11.4                                                                                | 11.4                                                                                |
| Actuated g/C Ratio                | 0.21                                                                              | 0.21                                                                              | 0.48                                                                              |                                                                                   | 0.08                                                                              | 0.08                                                                              | 0.27                                                                                | 0.48                                                                                | 0.48                                                                                | 0.04                                                                                | 0.16                                                                                | 0.16                                                                                |
| Clearance Time (s)                | 5.2                                                                               | 7.0                                                                               |                                                                                   |                                                                                   | 7.0                                                                               | 7.0                                                                               |                                                                                     | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 |
| Vehicle Extension (s)             | 2.1                                                                               | 2.5                                                                               |                                                                                   |                                                                                   | 3.1                                                                               | 3.1                                                                               |                                                                                     | 6.0                                                                                 | 6.0                                                                                 | 3.1                                                                                 | 5.0                                                                                 | 5.0                                                                                 |
| Lane Grp Cap (vph)                | 207                                                                               | 391                                                                               | 895                                                                               |                                                                                   | 156                                                                               | 133                                                                               | 473                                                                                 | 1695                                                                                | 758                                                                                 | 64                                                                                  | 565                                                                                 | 252                                                                                 |
| v/s Ratio Prot                    | c0.01                                                                             | 0.03                                                                              | 0.03                                                                              |                                                                                   | c0.03                                                                             |                                                                                   | c0.08                                                                               | c0.06                                                                               |                                                                                     | 0.02                                                                                | c0.05                                                                               |                                                                                     |
| v/s Ratio Perm                    | 0.04                                                                              |                                                                                   | 0.03                                                                              |                                                                                   |                                                                                   | 0.00                                                                              |                                                                                     |                                                                                     | 0.00                                                                                |                                                                                     |                                                                                     | 0.00                                                                                |
| v/c Ratio                         | 0.23                                                                              | 0.15                                                                              | 0.11                                                                              |                                                                                   | 0.35                                                                              | 0.03                                                                              | 0.28                                                                                | 0.13                                                                                | 0.00                                                                                | 0.47                                                                                | 0.32                                                                                | 0.02                                                                                |
| Uniform Delay, d1                 | 23.1                                                                              | 23.0                                                                              | 10.3                                                                              |                                                                                   | 30.8                                                                              | 30.0                                                                              | 20.7                                                                                | 10.3                                                                                | 9.7                                                                                 | 33.7                                                                                | 26.6                                                                                | 25.3                                                                                |
| Progression Factor                | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Incremental Delay, d2             | 0.3                                                                               | 0.1                                                                               | 0.0                                                                               |                                                                                   | 1.4                                                                               | 0.1                                                                               | 0.1                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 5.5                                                                                 | 0.7                                                                                 | 0.1                                                                                 |
| Delay (s)                         | 23.3                                                                              | 23.1                                                                              | 10.3                                                                              |                                                                                   | 32.2                                                                              | 30.1                                                                              | 20.8                                                                                | 10.4                                                                                | 9.7                                                                                 | 39.3                                                                                | 27.3                                                                                | 25.4                                                                                |
| Level of Service                  | C                                                                                 | C                                                                                 | B                                                                                 |                                                                                   | C                                                                                 | C                                                                                 | C                                                                                   | B                                                                                   | A                                                                                   | D                                                                                   | C                                                                                   | C                                                                                   |
| Approach Delay (s)                |                                                                                   | 14.7                                                                              |                                                                                   |                                                                                   | 31.2                                                                              |                                                                                   |                                                                                     | 14.4                                                                                |                                                                                     |                                                                                     | 28.4                                                                                |                                                                                     |
| Approach LOS                      |                                                                                   | B                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                     | B                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| <b>Intersection Summary</b>       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 2000 Control Delay            |                                                                                   |                                                                                   | 19.6                                                                              |                                                                                   |                                                                                   |                                                                                   | HCM 2000 Level of Service                                                           |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |                                                                                     |
| HCM 2000 Volume to Capacity ratio |                                                                                   |                                                                                   | 0.30                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Actuated Cycle Length (s)         |                                                                                   |                                                                                   | 71.4                                                                              |                                                                                   |                                                                                   |                                                                                   | Sum of lost time (s)                                                                |                                                                                     |                                                                                     | 31.1                                                                                |                                                                                     |                                                                                     |
| Intersection Capacity Utilization |                                                                                   |                                                                                   | 41.9%                                                                             |                                                                                   |                                                                                   |                                                                                   | ICU Level of Service                                                                |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |
| Analysis Period (min)             |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| c Critical Lane Group             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

# HCS7 Two-Way Stop-Control Report

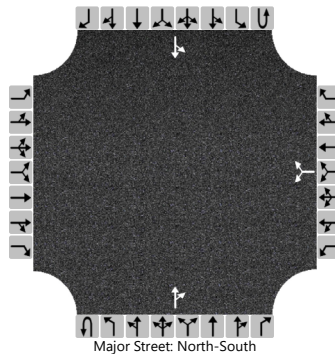
## General Information

|                          |               |
|--------------------------|---------------|
| Analyst                  | A. Simmons    |
| Agency/Co.               | Keck & Wood   |
| Date Performed           | 8/31/2021     |
| Analysis Year            | 2021          |
| Time Analyzed            | PM Peak       |
| Intersection Orientation | North-South   |
| Project Description      | Existing 2021 |

## Site Information

|                            |                         |
|----------------------------|-------------------------|
| Intersection               | Skelton Rd @ U-Haul Dwy |
| Jurisdiction               | City of Gainesville     |
| East/West Street           | U-Haul Dwy              |
| North/South Street         | Skelton Rd              |
| Peak Hour Factor           | 0.85                    |
| Analysis Time Period (hrs) | 0.25                    |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |    |    | Westbound |   |    |   | Northbound |   |     |    | Southbound |    |     |   |
|----------------------------|-----------|----|----|----|-----------|---|----|---|------------|---|-----|----|------------|----|-----|---|
| Movement                   | U         | L  | T  | R  | U         | L | T  | R | U          | L | T   | R  | U          | L  | T   | R |
| Priority                   |           | 10 | 11 | 12 |           | 7 | 8  | 9 | 1U         | 1 | 2   | 3  | 4U         | 4  | 5   | 6 |
| Number of Lanes            |           | 0  | 0  | 0  |           | 0 | 1  | 0 | 0          | 0 | 1   | 0  | 0          | 0  | 1   | 0 |
| Configuration              |           |    |    |    |           |   | LR |   |            |   |     | TR |            | LT |     |   |
| Volume (veh/h)             |           |    |    |    |           | 0 |    | 0 |            |   | 294 | 0  |            | 1  | 283 |   |
| Percent Heavy Vehicles (%) |           |    |    |    |           | 2 |    | 2 |            |   |     |    |            | 2  |     |   |
| Proportion Time Blocked    |           |    |    |    |           |   |    |   |            |   |     |    |            |    |     |   |
| Percent Grade (%)          |           |    |    |    | 0         |   |    |   |            |   |     |    |            |    |     |   |
| Right Turn Channelized     |           |    |    |    |           |   |    |   |            |   |     |    |            |    |     |   |
| Median Type   Storage      | Undivided |    |    |    |           |   |    |   |            |   |     |    |            |    |     |   |

## Critical and Follow-up Headways

|                              |  |  |  |  |  |      |  |      |  |  |  |  |  |      |  |  |
|------------------------------|--|--|--|--|--|------|--|------|--|--|--|--|--|------|--|--|
| Base Critical Headway (sec)  |  |  |  |  |  | 7.1  |  | 6.2  |  |  |  |  |  | 4.1  |  |  |
| Critical Headway (sec)       |  |  |  |  |  | 6.42 |  | 6.22 |  |  |  |  |  | 4.12 |  |  |
| Base Follow-Up Headway (sec) |  |  |  |  |  | 3.5  |  | 3.3  |  |  |  |  |  | 2.2  |  |  |
| Follow-Up Headway (sec)      |  |  |  |  |  | 3.52 |  | 3.32 |  |  |  |  |  | 2.22 |  |  |

## Delay, Queue Length, and Level of Service

|                                         |  |  |  |  |  |   |  |  |  |  |  |  |     |      |  |  |
|-----------------------------------------|--|--|--|--|--|---|--|--|--|--|--|--|-----|------|--|--|
| Flow Rate, v (veh/h)                    |  |  |  |  |  | 0 |  |  |  |  |  |  |     | 1    |  |  |
| Capacity, c (veh/h)                     |  |  |  |  |  |   |  |  |  |  |  |  |     | 1213 |  |  |
| v/c Ratio                               |  |  |  |  |  |   |  |  |  |  |  |  |     | 0.00 |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |  |  |  |  |  |   |  |  |  |  |  |  |     | 0.0  |  |  |
| Control Delay (s/veh)                   |  |  |  |  |  |   |  |  |  |  |  |  |     | 8.0  |  |  |
| Level of Service (LOS)                  |  |  |  |  |  |   |  |  |  |  |  |  |     | A    |  |  |
| Approach Delay (s/veh)                  |  |  |  |  |  |   |  |  |  |  |  |  | 0.0 |      |  |  |
| Approach LOS                            |  |  |  |  |  |   |  |  |  |  |  |  |     |      |  |  |

Existing 2021 - PM.syn  
2: Skelton Rd & Shallowford Rd

|                         |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | SET                                                                               | NWL                                                                               | NWT                                                                               | NEL                                                                               | NER                                                                               |
| Lane Group Flow (vph)   | 555                                                                               | 200                                                                               | 371                                                                               | 163                                                                               | 255                                                                               |
| v/c Ratio               | 0.26                                                                              | 0.31                                                                              | 0.14                                                                              | 0.68                                                                              | 0.41                                                                              |
| Control Delay           | 10.3                                                                              | 6.2                                                                               | 4.6                                                                               | 62.6                                                                              | 5.6                                                                               |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |
| Total Delay             | 10.3                                                                              | 6.2                                                                               | 4.6                                                                               | 62.6                                                                              | 5.6                                                                               |
| Queue Length 50th (ft)  | 83                                                                                | 37                                                                                | 35                                                                                | 122                                                                               | 0                                                                                 |
| Queue Length 95th (ft)  | 140                                                                               | 73                                                                                | 61                                                                                | 185                                                                               | 56                                                                                |
| Internal Link Dist (ft) | 866                                                                               |                                                                                   | 1660                                                                              | 296                                                                               |                                                                                   |
| Turn Bay Length (ft)    |                                                                                   | 80                                                                                |                                                                                   |                                                                                   | 250                                                                               |
| Base Capacity (vph)     | 2125                                                                              | 751                                                                               | 2666                                                                              | 491                                                                               | 715                                                                               |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Reduced v/c Ratio       | 0.26                                                                              | 0.27                                                                              | 0.14                                                                              | 0.33                                                                              | 0.36                                                                              |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

Existing 2021 - PM.syn  
2: Skelton Rd & Shallowford Rd

|                                   |  |  |  |  |  |  |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Movement                          | SET                                                                               | SER                                                                               | NWL                                                                               | NWT                                                                               | NEL                                                                               | NER                                                                               |
| Lane Configurations               |  |                                                                                   |  |  |  |  |
| Traffic Volume (vph)              | 382                                                                               | 151                                                                               | 192                                                                               | 356                                                                               | 156                                                                               | 245                                                                               |
| Future Volume (vph)               | 382                                                                               | 151                                                                               | 192                                                                               | 356                                                                               | 156                                                                               | 245                                                                               |
| Ideal Flow (vphpl)                | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              |
| Total Lost time (s)               | 6.5                                                                               |                                                                                   | 6.5                                                                               | 6.5                                                                               | 6.7                                                                               | 6.5                                                                               |
| Lane Util. Factor                 | 0.95                                                                              |                                                                                   | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                              |
| Frt                               | 0.96                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.85                                                                              |
| Flt Protected                     | 1.00                                                                              |                                                                                   | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              |
| Satd. Flow (prot)                 | 3389                                                                              |                                                                                   | 1770                                                                              | 3539                                                                              | 1770                                                                              | 1583                                                                              |
| Flt Permitted                     | 1.00                                                                              |                                                                                   | 0.43                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              |
| Satd. Flow (perm)                 | 3389                                                                              |                                                                                   | 801                                                                               | 3539                                                                              | 1770                                                                              | 1583                                                                              |
| Peak-hour factor, PHF             | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              |
| Adj. Flow (vph)                   | 398                                                                               | 157                                                                               | 200                                                                               | 371                                                                               | 162                                                                               | 255                                                                               |
| RTOR Reduction (vph)              | 22                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 200                                                                               |
| Lane Group Flow (vph)             | 533                                                                               | 0                                                                                 | 200                                                                               | 371                                                                               | 163                                                                               | 55                                                                                |
| Turn Type                         | NA                                                                                |                                                                                   | D.P+P                                                                             | NA                                                                                | Prot                                                                              | pm+ov                                                                             |
| Protected Phases                  | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 | 4                                                                                 | 1                                                                                 |
| Permitted Phases                  |                                                                                   |                                                                                   | 2                                                                                 |                                                                                   |                                                                                   | 4                                                                                 |
| Actuated Green, G (s)             | 74.4                                                                              |                                                                                   | 83.9                                                                              | 90.4                                                                              | 16.4                                                                              | 25.9                                                                              |
| Effective Green, g (s)            | 74.4                                                                              |                                                                                   | 83.9                                                                              | 90.4                                                                              | 16.4                                                                              | 25.9                                                                              |
| Actuated g/C Ratio                | 0.62                                                                              |                                                                                   | 0.70                                                                              | 0.75                                                                              | 0.14                                                                              | 0.22                                                                              |
| Clearance Time (s)                | 6.5                                                                               |                                                                                   | 6.5                                                                               | 6.5                                                                               | 6.7                                                                               | 6.5                                                                               |
| Vehicle Extension (s)             | 6.0                                                                               |                                                                                   | 3.0                                                                               | 6.0                                                                               | 3.0                                                                               | 3.0                                                                               |
| Lane Grp Cap (vph)                | 2101                                                                              |                                                                                   | 636                                                                               | 2666                                                                              | 241                                                                               | 341                                                                               |
| v/s Ratio Prot                    | 0.16                                                                              |                                                                                   | c0.02                                                                             | 0.10                                                                              | c0.09                                                                             | 0.01                                                                              |
| v/s Ratio Perm                    |                                                                                   |                                                                                   | c0.19                                                                             |                                                                                   |                                                                                   | 0.02                                                                              |
| v/c Ratio                         | 0.25                                                                              |                                                                                   | 0.31                                                                              | 0.14                                                                              | 0.68                                                                              | 0.16                                                                              |
| Uniform Delay, d1                 | 10.3                                                                              |                                                                                   | 6.2                                                                               | 4.1                                                                               | 49.3                                                                              | 38.2                                                                              |
| Progression Factor                | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Incremental Delay, d2             | 0.3                                                                               |                                                                                   | 0.3                                                                               | 0.1                                                                               | 7.3                                                                               | 0.2                                                                               |
| Delay (s)                         | 10.6                                                                              |                                                                                   | 6.4                                                                               | 4.2                                                                               | 56.6                                                                              | 38.5                                                                              |
| Level of Service                  | B                                                                                 |                                                                                   | A                                                                                 | A                                                                                 | E                                                                                 | D                                                                                 |
| Approach Delay (s)                | 10.6                                                                              |                                                                                   |                                                                                   | 5.0                                                                               | 45.5                                                                              |                                                                                   |
| Approach LOS                      | B                                                                                 |                                                                                   |                                                                                   | A                                                                                 | D                                                                                 |                                                                                   |
| <b>Intersection Summary</b>       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 2000 Control Delay            |                                                                                   |                                                                                   | 18.0                                                                              |                                                                                   | HCM 2000 Level of Service                                                         | B                                                                                 |
| HCM 2000 Volume to Capacity ratio |                                                                                   |                                                                                   | 0.37                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Actuated Cycle Length (s)         |                                                                                   |                                                                                   | 120.0                                                                             |                                                                                   | Sum of lost time (s)                                                              | 19.7                                                                              |
| Intersection Capacity Utilization |                                                                                   |                                                                                   | 51.1%                                                                             |                                                                                   | ICU Level of Service                                                              | A                                                                                 |
| Analysis Period (min)             |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |
| c Critical Lane Group             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

# HCS7 Two-Way Stop-Control Report

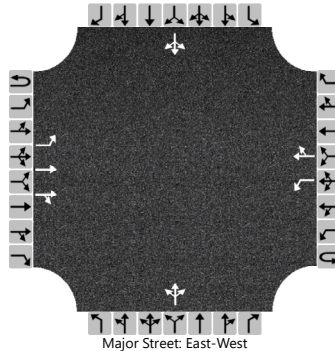
## General Information

|                          |               |
|--------------------------|---------------|
| Analyst                  | A. Simmons    |
| Agency/Co.               | Keck & Wood   |
| Date Performed           | 8/31/2021     |
| Analysis Year            | 2021          |
| Time Analyzed            | PM Peak       |
| Intersection Orientation | East-West     |
| Project Description      | Existing 2021 |

## Site Information

|                            |                      |
|----------------------------|----------------------|
| Intersection               | Shallowford @ Albert |
| Jurisdiction               | City of Gainesville  |
| East/West Street           | Shallowford Rd       |
| North/South Street         | Albert St            |
| Peak Hour Factor           | 0.95                 |
| Analysis Time Period (hrs) | 0.25                 |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |    | Westbound |   |     |    | Northbound |   |     |   | Southbound |    |     |    |
|----------------------------|-----------|---|-----|----|-----------|---|-----|----|------------|---|-----|---|------------|----|-----|----|
| Movement                   | U         | L | T   | R  | U         | L | T   | R  | U          | L | T   | R | U          | L  | T   | R  |
| Priority                   | 1U        | 1 | 2   | 3  | 4U        | 4 | 5   | 6  |            | 7 | 8   | 9 |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 1 | 2   | 0  | 0         | 1 | 1   | 0  |            | 0 | 1   | 0 |            | 0  | 1   | 0  |
| Configuration              |           | L | T   | TR |           | L |     | TR |            |   | LTR |   |            |    | LTR |    |
| Volume (veh/h)             |           | 1 | 653 | 3  | 0         | 4 | 583 | 0  |            | 0 | 0   | 0 |            | 1  | 0   | 9  |
| Percent Heavy Vehicles (%) |           | 2 |     |    | 2         | 2 |     |    |            | 2 | 2   | 2 |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |   |     |    |           |   |     |    |            |   |     |   |            |    |     |    |
| Percent Grade (%)          |           |   |     |    |           |   |     |    | 0          |   |     |   | 0          |    |     |    |
| Right Turn Channelized     |           |   |     |    |           |   |     |    |            |   |     |   |            |    |     |    |
| Median Type   Storage      | Undivided |   |     |    |           |   |     |    |            |   |     |   |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.5  | 6.5  | 6.9  |  | 7.5  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.14 |  |  |  | 4.14 |  |  |  | 7.54 | 6.54 | 6.94 |  | 7.54 | 6.54 | 6.24 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |  |  |     |      |  |  |  |  |   |  |      |  |      |  |
|-----------------------------------------|-----|------|--|--|-----|------|--|--|--|--|---|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 1    |  |  |     | 4    |  |  |  |  | 0 |  |      |  | 11   |  |
| Capacity, c (veh/h)                     |     | 962  |  |  |     | 900  |  |  |  |  |   |  |      |  | 431  |  |
| v/c Ratio                               |     | 0.00 |  |  |     | 0.00 |  |  |  |  |   |  |      |  | 0.02 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.0  |  |  |     | 0.0  |  |  |  |  |   |  |      |  | 0.1  |  |
| Control Delay (s/veh)                   |     | 8.7  |  |  |     | 9.0  |  |  |  |  |   |  |      |  | 13.6 |  |
| Level of Service (LOS)                  |     | A    |  |  |     | A    |  |  |  |  |   |  |      |  | B    |  |
| Approach Delay (s/veh)                  | 0.0 |      |  |  | 0.1 |      |  |  |  |  |   |  | 13.6 |  |      |  |
| Approach LOS                            |     |      |  |  |     |      |  |  |  |  |   |  | B    |  |      |  |



# HCS7 Two-Way Stop-Control Report

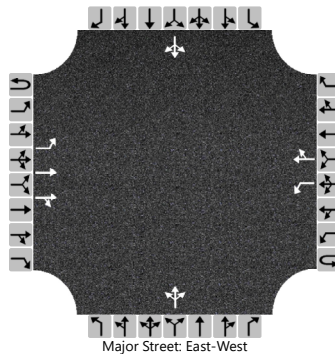
## General Information

|                          |               |
|--------------------------|---------------|
| Analyst                  | A. Simmons    |
| Agency/Co.               | Keck & Wood   |
| Date Performed           | 8/31/2021     |
| Analysis Year            | 2021          |
| Time Analyzed            | PM Peak       |
| Intersection Orientation | East-West     |
| Project Description      | Existing 2021 |

## Site Information

|                            |                           |
|----------------------------|---------------------------|
| Intersection               | Shallowford @ Regions Dwy |
| Jurisdiction               | City of Gainesville       |
| East/West Street           | Shallowford Rd            |
| North/South Street         | Regions Dwy               |
| Peak Hour Factor           | 0.85                      |
| Analysis Time Period (hrs) | 0.25                      |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |     |    | Westbound |    |     |    | Northbound |   |     |   | Southbound |    |     |    |
|----------------------------|-----------|----|-----|----|-----------|----|-----|----|------------|---|-----|---|------------|----|-----|----|
| Movement                   | U         | L  | T   | R  | U         | L  | T   | R  | U          | L | T   | R | U          | L  | T   | R  |
| Priority                   | 1U        | 1  | 2   | 3  | 4U        | 4  | 5   | 6  |            | 7 | 8   | 9 |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 1  | 2   | 0  | 0         | 1  | 1   | 0  |            | 0 | 1   | 0 |            | 0  | 1   | 0  |
| Configuration              |           | L  | T   | TR |           | L  |     | TR |            |   | LTR |   |            |    | LTR |    |
| Volume (veh/h)             |           | 13 | 628 | 6  | 0         | 10 | 559 | 23 |            | 2 | 0   | 2 |            | 13 | 0   | 26 |
| Percent Heavy Vehicles (%) |           | 2  |     |    | 2         | 2  |     |    |            | 2 | 2   | 2 |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |    |     |    |           |    |     |    |            |   |     |   |            |    |     |    |
| Percent Grade (%)          |           |    |     |    |           |    |     |    | 0          |   |     |   | 0          |    |     |    |
| Right Turn Channelized     |           |    |     |    |           |    |     |    |            |   |     |   |            |    |     |    |
| Median Type   Storage      | Undivided |    |     |    |           |    |     |    |            |   |     |   |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.5  | 6.5  | 6.9  |  | 7.5  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.14 |  |  |  | 4.14 |  |  |  | 7.54 | 6.54 | 6.94 |  | 7.54 | 6.54 | 6.24 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

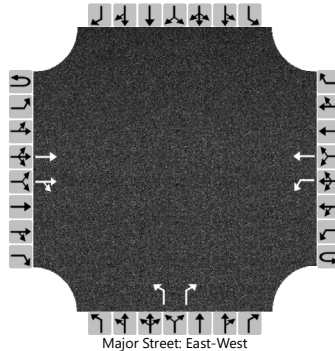
|                                         |     |      |  |  |     |      |  |  |      |  |      |  |      |  |      |  |
|-----------------------------------------|-----|------|--|--|-----|------|--|--|------|--|------|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 15   |  |  |     | 12   |  |  |      |  | 5    |  |      |  | 46   |  |
| Capacity, c (veh/h)                     |     | 905  |  |  |     | 858  |  |  |      |  | 140  |  |      |  | 285  |  |
| v/c Ratio                               |     | 0.02 |  |  |     | 0.01 |  |  |      |  | 0.03 |  |      |  | 0.16 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.1  |  |  |     | 0.0  |  |  |      |  | 0.1  |  |      |  | 0.6  |  |
| Control Delay (s/veh)                   |     | 9.0  |  |  |     | 9.3  |  |  |      |  | 31.5 |  |      |  | 20.0 |  |
| Level of Service (LOS)                  |     | A    |  |  |     | A    |  |  |      |  | D    |  |      |  | C    |  |
| Approach Delay (s/veh)                  | 0.2 |      |  |  | 0.2 |      |  |  | 31.5 |  |      |  | 20.0 |  |      |  |
| Approach LOS                            |     |      |  |  |     |      |  |  | D    |  |      |  | C    |  |      |  |

# HCS7 Two-Way Stop-Control Report

## General Information

|                          |               |                            |                          |
|--------------------------|---------------|----------------------------|--------------------------|
| Analyst                  | A. Simmons    | Intersection               | Shallowford @ Strip Mall |
| Agency/Co.               | Keck & Wood   | Jurisdiction               | City of Gainesville      |
| Date Performed           | 8/31/2021     | East/West Street           | Shallowford Rd           |
| Analysis Year            | 2021          | North/South Street         | Strip Mall (Dwy #3)      |
| Time Analyzed            | PM Peak       | Peak Hour Factor           | 0.85                     |
| Intersection Orientation | East-West     | Analysis Time Period (hrs) | 0.25                     |
| Project Description      | Existing 2021 |                            |                          |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |    | Westbound |   |     |   | Northbound |   |   |   | Southbound |    |    |    |
|----------------------------|-----------|---|-----|----|-----------|---|-----|---|------------|---|---|---|------------|----|----|----|
| Movement                   | U         | L | T   | R  | U         | L | T   | R | U          | L | T | R | U          | L  | T  | R  |
| Priority                   | 1U        | 1 | 2   | 3  | 4U        | 4 | 5   | 6 |            | 7 | 8 | 9 |            | 10 | 11 | 12 |
| Number of Lanes            | 0         | 0 | 2   | 0  | 0         | 1 | 1   | 0 |            | 1 | 0 | 1 |            | 0  | 0  | 0  |
| Configuration              |           |   | T   | TR |           | L | T   |   |            | L |   | R |            |    |    |    |
| Volume (veh/h)             |           |   | 654 | 2  | 0         | 3 | 588 |   |            | 1 |   | 5 |            |    |    |    |
| Percent Heavy Vehicles (%) |           |   |     |    | 2         | 2 |     |   |            | 2 |   | 2 |            |    |    |    |
| Proportion Time Blocked    |           |   |     |    |           |   |     |   |            |   |   |   |            |    |    |    |
| Percent Grade (%)          |           |   |     |    |           |   |     |   | 0          |   |   |   |            |    |    |    |
| Right Turn Channelized     |           |   |     |    |           |   |     |   | No         |   |   |   |            |    |    |    |
| Median Type   Storage      | Undivided |   |     |    |           |   |     |   |            |   |   |   |            |    |    |    |

## Critical and Follow-up Headways

|                              |  |  |  |  |  |      |  |  |  |      |  |      |  |  |  |  |
|------------------------------|--|--|--|--|--|------|--|--|--|------|--|------|--|--|--|--|
| Base Critical Headway (sec)  |  |  |  |  |  | 4.1  |  |  |  | 7.5  |  | 6.9  |  |  |  |  |
| Critical Headway (sec)       |  |  |  |  |  | 4.14 |  |  |  | 6.84 |  | 6.94 |  |  |  |  |
| Base Follow-Up Headway (sec) |  |  |  |  |  | 2.2  |  |  |  | 3.5  |  | 3.3  |  |  |  |  |
| Follow-Up Headway (sec)      |  |  |  |  |  | 2.22 |  |  |  | 3.52 |  | 3.32 |  |  |  |  |

## Delay, Queue Length, and Level of Service

|                                         |  |  |  |  |     |      |  |  |      |      |  |      |  |  |  |  |
|-----------------------------------------|--|--|--|--|-----|------|--|--|------|------|--|------|--|--|--|--|
| Flow Rate, v (veh/h)                    |  |  |  |  |     | 4    |  |  |      | 1    |  | 6    |  |  |  |  |
| Capacity, c (veh/h)                     |  |  |  |  |     | 839  |  |  |      | 118  |  | 612  |  |  |  |  |
| v/c Ratio                               |  |  |  |  |     | 0.00 |  |  |      | 0.01 |  | 0.01 |  |  |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |  |  |  |  |     | 0.0  |  |  |      | 0.0  |  | 0.0  |  |  |  |  |
| Control Delay (s/veh)                   |  |  |  |  |     | 9.3  |  |  |      | 35.9 |  | 10.9 |  |  |  |  |
| Level of Service (LOS)                  |  |  |  |  |     | A    |  |  |      | E    |  | B    |  |  |  |  |
| Approach Delay (s/veh)                  |  |  |  |  | 0.0 |      |  |  | 15.1 |      |  |      |  |  |  |  |
| Approach LOS                            |  |  |  |  |     |      |  |  | C    |      |  |      |  |  |  |  |

|                         |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                                | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Group Flow (vph)   | 138                                                                               | 123                                                                               | 431                                                                               | 169                                                                               | 73                                                                                | 326                                                                               | 334                                                                                | 4                                                                                   | 35                                                                                  | 268                                                                                 | 128                                                                                 |
| v/c Ratio               | 0.40                                                                              | 0.22                                                                              | 0.37                                                                              | 0.65                                                                              | 0.18                                                                              | 0.70                                                                              | 0.20                                                                               | 0.00                                                                                | 0.26                                                                                | 0.48                                                                                | 0.30                                                                                |
| Control Delay           | 29.9                                                                              | 28.4                                                                              | 3.8                                                                               | 53.3                                                                              | 1.0                                                                               | 24.7                                                                              | 15.8                                                                               | 0.0                                                                                 | 48.4                                                                                | 39.8                                                                                | 1.7                                                                                 |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Delay             | 29.9                                                                              | 28.4                                                                              | 3.8                                                                               | 53.3                                                                              | 1.0                                                                               | 24.7                                                                              | 15.8                                                                               | 0.0                                                                                 | 48.4                                                                                | 39.8                                                                                | 1.7                                                                                 |
| Queue Length 50th (ft)  | 60                                                                                | 54                                                                                | 41                                                                                | 96                                                                                | 0                                                                                 | 98                                                                                | 65                                                                                 | 0                                                                                   | 20                                                                                  | 76                                                                                  | 0                                                                                   |
| Queue Length 95th (ft)  | 129                                                                               | 119                                                                               | 93                                                                                | #220                                                                              | 0                                                                                 | 147                                                                               | 96                                                                                 | 0                                                                                   | 56                                                                                  | 128                                                                                 | 0                                                                                   |
| Internal Link Dist (ft) | 1660                                                                              |                                                                                   | 848                                                                               |                                                                                   | 1028                                                                              |                                                                                   | 2617                                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Turn Bay Length (ft)    | 80                                                                                |                                                                                   |                                                                                   |                                                                                   | 90                                                                                | 430                                                                               | 225                                                                                |                                                                                     | 145                                                                                 | 250                                                                                 |                                                                                     |
| Base Capacity (vph)     | 349                                                                               | 565                                                                               | 1403                                                                              | 260                                                                               | 406                                                                               | 1100                                                                              | 3173                                                                               | 1432                                                                                | 166                                                                                 | 1100                                                                                | 643                                                                                 |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Reduced v/c Ratio       | 0.40                                                                              | 0.22                                                                              | 0.31                                                                              | 0.65                                                                              | 0.18                                                                              | 0.30                                                                              | 0.11                                                                               | 0.00                                                                                | 0.21                                                                                | 0.24                                                                                | 0.20                                                                                |

## Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

## Existing 2021 - PM.syn

## 6: Pearl Nix Pkwy &amp; Shallowford Rd/West End Ave

|                                   |  |  |  |  |  |  |   |  |  |  |  |  |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                          | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations               |  |  |  |                                                                                   |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)              | 132                                                                               | 118                                                                               | 414                                                                               | 3                                                                                 | 159                                                                               | 70                                                                                | 313                                                                                 | 321                                                                                 | 4                                                                                   | 34                                                                                  | 257                                                                                 | 123                                                                                 |
| Future Volume (vph)               | 132                                                                               | 118                                                                               | 414                                                                               | 3                                                                                 | 159                                                                               | 70                                                                                | 313                                                                                 | 321                                                                                 | 4                                                                                   | 34                                                                                  | 257                                                                                 | 123                                                                                 |
| Ideal Flow (vphpl)                | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Total Lost time (s)               | 5.2                                                                               | 7.0                                                                               | 6.3                                                                               |                                                                                   | 7.0                                                                               | 7.0                                                                               | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 |
| Lane Util. Factor                 | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                | 0.95                                                                                | 1.00                                                                                |
| Frt                               | 1.00                                                                              | 1.00                                                                              | 0.85                                                                              |                                                                                   | 1.00                                                                              | 0.85                                                                              | 1.00                                                                                | 1.00                                                                                | 0.85                                                                                | 1.00                                                                                | 1.00                                                                                | 0.85                                                                                |
| Flt Protected                     | 0.95                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                |
| Satd. Flow (prot)                 | 1770                                                                              | 1863                                                                              | 1583                                                                              |                                                                                   | 1861                                                                              | 1583                                                                              | 1770                                                                                | 3539                                                                                | 1583                                                                                | 1770                                                                                | 3539                                                                                | 1583                                                                                |
| Flt Permitted                     | 0.41                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                |
| Satd. Flow (perm)                 | 766                                                                               | 1863                                                                              | 1583                                                                              |                                                                                   | 1850                                                                              | 1583                                                                              | 1770                                                                                | 3539                                                                                | 1583                                                                                | 1770                                                                                | 3539                                                                                | 1583                                                                                |
| Peak-hour factor, PHF             | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                                | 0.96                                                                                | 0.96                                                                                | 0.96                                                                                | 0.96                                                                                | 0.96                                                                                |
| Adj. Flow (vph)                   | 138                                                                               | 123                                                                               | 431                                                                               | 3                                                                                 | 166                                                                               | 73                                                                                | 326                                                                                 | 334                                                                                 | 4                                                                                   | 35                                                                                  | 268                                                                                 | 128                                                                                 |
| RTOR Reduction (vph)              | 0                                                                                 | 0                                                                                 | 83                                                                                | 0                                                                                 | 0                                                                                 | 63                                                                                | 0                                                                                   | 0                                                                                   | 2                                                                                   | 0                                                                                   | 0                                                                                   | 108                                                                                 |
| Lane Group Flow (vph)             | 138                                                                               | 123                                                                               | 348                                                                               | 0                                                                                 | 169                                                                               | 10                                                                                | 326                                                                                 | 334                                                                                 | 2                                                                                   | 35                                                                                  | 268                                                                                 | 20                                                                                  |
| Turn Type                         | pm+pt                                                                             | NA                                                                                | pm+ov                                                                             | Perm                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                                | NA                                                                                  | Perm                                                                                | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases                  | 7                                                                                 | 4                                                                                 | 1 10                                                                              |                                                                                   | 8                                                                                 |                                                                                   | 1 10                                                                                | 6                                                                                   |                                                                                     | 5                                                                                   | 2                                                                                   |                                                                                     |
| Permitted Phases                  | 4                                                                                 |                                                                                   | 4                                                                                 | 8                                                                                 |                                                                                   | 8                                                                                 |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 2                                                                                   |
| Actuated Green, G (s)             | 27.8                                                                              | 27.8                                                                              | 55.3                                                                              |                                                                                   | 13.2                                                                              | 13.2                                                                              | 27.5                                                                                | 44.0                                                                                | 44.0                                                                                | 4.5                                                                                 | 14.7                                                                                | 14.7                                                                                |
| Effective Green, g (s)            | 27.8                                                                              | 27.8                                                                              | 55.3                                                                              |                                                                                   | 13.2                                                                              | 13.2                                                                              | 27.5                                                                                | 44.0                                                                                | 44.0                                                                                | 4.5                                                                                 | 14.7                                                                                | 14.7                                                                                |
| Actuated g/C Ratio                | 0.29                                                                              | 0.29                                                                              | 0.58                                                                              |                                                                                   | 0.14                                                                              | 0.14                                                                              | 0.29                                                                                | 0.46                                                                                | 0.46                                                                                | 0.05                                                                                | 0.15                                                                                | 0.15                                                                                |
| Clearance Time (s)                | 5.2                                                                               | 7.0                                                                               |                                                                                   |                                                                                   | 7.0                                                                               | 7.0                                                                               |                                                                                     | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 |
| Vehicle Extension (s)             | 2.1                                                                               | 2.5                                                                               |                                                                                   |                                                                                   | 3.1                                                                               | 3.1                                                                               |                                                                                     | 6.0                                                                                 | 6.0                                                                                 | 3.1                                                                                 | 5.0                                                                                 | 5.0                                                                                 |
| Lane Grp Cap (vph)                | 320                                                                               | 540                                                                               | 1016                                                                              |                                                                                   | 254                                                                               | 217                                                                               | 507                                                                                 | 1623                                                                                | 726                                                                                 | 83                                                                                  | 542                                                                                 | 242                                                                                 |
| v/s Ratio Prot                    | 0.04                                                                              | 0.07                                                                              | c0.10                                                                             |                                                                                   |                                                                                   |                                                                                   | c0.18                                                                               | 0.09                                                                                |                                                                                     | 0.02                                                                                | c0.08                                                                               |                                                                                     |
| v/s Ratio Perm                    | 0.08                                                                              |                                                                                   | 0.12                                                                              |                                                                                   | c0.09                                                                             | 0.01                                                                              |                                                                                     |                                                                                     | 0.00                                                                                |                                                                                     |                                                                                     | 0.01                                                                                |
| v/c Ratio                         | 0.43                                                                              | 0.23                                                                              | 0.34                                                                              |                                                                                   | 0.67                                                                              | 0.05                                                                              | 0.64                                                                                | 0.21                                                                                | 0.00                                                                                | 0.42                                                                                | 0.49                                                                                | 0.08                                                                                |
| Uniform Delay, d1                 | 26.5                                                                              | 25.9                                                                              | 10.7                                                                              |                                                                                   | 39.3                                                                              | 35.9                                                                              | 29.9                                                                                | 15.5                                                                                | 14.1                                                                                | 44.4                                                                                | 37.2                                                                                | 34.8                                                                                |
| Progression Factor                | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Incremental Delay, d2             | 0.4                                                                               | 0.2                                                                               | 0.1                                                                               |                                                                                   | 6.5                                                                               | 0.1                                                                               | 2.1                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 3.6                                                                                 | 1.5                                                                                 | 0.3                                                                                 |
| Delay (s)                         | 26.9                                                                              | 26.0                                                                              | 10.8                                                                              |                                                                                   | 45.7                                                                              | 36.0                                                                              | 32.0                                                                                | 15.7                                                                                | 14.1                                                                                | 48.0                                                                                | 38.7                                                                                | 35.1                                                                                |
| Level of Service                  | C                                                                                 | C                                                                                 | B                                                                                 |                                                                                   | D                                                                                 | D                                                                                 | C                                                                                   | B                                                                                   | B                                                                                   | D                                                                                   | D                                                                                   | D                                                                                   |
| Approach Delay (s)                |                                                                                   | 16.7                                                                              |                                                                                   |                                                                                   | 42.8                                                                              |                                                                                   |                                                                                     | 23.7                                                                                |                                                                                     |                                                                                     | 38.4                                                                                |                                                                                     |
| Approach LOS                      |                                                                                   | B                                                                                 |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                     | C                                                                                   |                                                                                     |                                                                                     | D                                                                                   |                                                                                     |
| <b>Intersection Summary</b>       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 2000 Control Delay            |                                                                                   |                                                                                   | 26.7                                                                              |                                                                                   |                                                                                   |                                                                                   | HCM 2000 Level of Service                                                           |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |                                                                                     |
| HCM 2000 Volume to Capacity ratio |                                                                                   |                                                                                   | 0.60                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Actuated Cycle Length (s)         |                                                                                   |                                                                                   | 95.9                                                                              |                                                                                   |                                                                                   |                                                                                   | Sum of lost time (s)                                                                |                                                                                     |                                                                                     | 31.1                                                                                |                                                                                     |                                                                                     |
| Intersection Capacity Utilization |                                                                                   |                                                                                   | 62.9%                                                                             |                                                                                   |                                                                                   |                                                                                   | ICU Level of Service                                                                |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |                                                                                     |
| Analysis Period (min)             |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| c Critical Lane Group             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

# APPENDIX F – OPENING YEAR 2024 OPERATIONAL ANALYSIS REPORTS



# HCS7 Two-Way Stop-Control Report

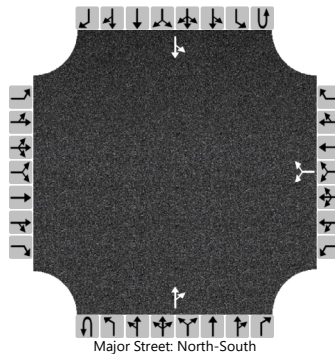
## General Information

|                          |                        |
|--------------------------|------------------------|
| Analyst                  | A. Simmons             |
| Agency/Co.               | Keck & Wood            |
| Date Performed           | 8/31/2021              |
| Analysis Year            | 2024                   |
| Time Analyzed            | AM Peak                |
| Intersection Orientation | North-South            |
| Project Description      | Future Background 2024 |

## Site Information

|                            |                         |
|----------------------------|-------------------------|
| Intersection               | Skelton Rd @ U-Haul Dwy |
| Jurisdiction               | City of Gainesville     |
| East/West Street           | U-Haul Dwy              |
| North/South Street         | Skelton Rd              |
| Peak Hour Factor           | 0.87                    |
| Analysis Time Period (hrs) | 0.25                    |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |    |    | Westbound |   |    |   | Northbound |   |     |    | Southbound |    |     |   |
|----------------------------|-----------|----|----|----|-----------|---|----|---|------------|---|-----|----|------------|----|-----|---|
| Movement                   | U         | L  | T  | R  | U         | L | T  | R | U          | L | T   | R  | U          | L  | T   | R |
| Priority                   |           | 10 | 11 | 12 |           | 7 | 8  | 9 | 1U         | 1 | 2   | 3  | 4U         | 4  | 5   | 6 |
| Number of Lanes            |           | 0  | 0  | 0  |           | 0 | 1  | 0 | 0          | 0 | 1   | 0  | 0          | 0  | 1   | 0 |
| Configuration              |           |    |    |    |           |   | LR |   |            |   |     | TR |            | LT |     |   |
| Volume (veh/h)             |           |    |    |    |           | 0 |    | 0 |            |   | 135 | 0  |            | 0  | 138 |   |
| Percent Heavy Vehicles (%) |           |    |    |    |           | 2 |    | 2 |            |   |     |    |            | 2  |     |   |
| Proportion Time Blocked    |           |    |    |    |           |   |    |   |            |   |     |    |            |    |     |   |
| Percent Grade (%)          |           |    |    |    | 0         |   |    |   |            |   |     |    |            |    |     |   |
| Right Turn Channelized     |           |    |    |    |           |   |    |   |            |   |     |    |            |    |     |   |
| Median Type   Storage      | Undivided |    |    |    |           |   |    |   |            |   |     |    |            |    |     |   |

## Critical and Follow-up Headways

|                              |  |  |  |  |  |      |  |      |  |  |  |  |  |      |  |  |
|------------------------------|--|--|--|--|--|------|--|------|--|--|--|--|--|------|--|--|
| Base Critical Headway (sec)  |  |  |  |  |  | 7.1  |  | 6.2  |  |  |  |  |  | 4.1  |  |  |
| Critical Headway (sec)       |  |  |  |  |  | 6.42 |  | 6.22 |  |  |  |  |  | 4.12 |  |  |
| Base Follow-Up Headway (sec) |  |  |  |  |  | 3.5  |  | 3.3  |  |  |  |  |  | 2.2  |  |  |
| Follow-Up Headway (sec)      |  |  |  |  |  | 3.52 |  | 3.32 |  |  |  |  |  | 2.22 |  |  |

## Delay, Queue Length, and Level of Service

|                                         |  |  |  |  |  |   |  |  |  |  |  |  |     |      |  |  |
|-----------------------------------------|--|--|--|--|--|---|--|--|--|--|--|--|-----|------|--|--|
| Flow Rate, v (veh/h)                    |  |  |  |  |  | 0 |  |  |  |  |  |  |     | 0    |  |  |
| Capacity, c (veh/h)                     |  |  |  |  |  |   |  |  |  |  |  |  |     | 1425 |  |  |
| v/c Ratio                               |  |  |  |  |  |   |  |  |  |  |  |  |     | 0.00 |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |  |  |  |  |  |   |  |  |  |  |  |  |     | 0.0  |  |  |
| Control Delay (s/veh)                   |  |  |  |  |  |   |  |  |  |  |  |  |     | 7.5  |  |  |
| Level of Service (LOS)                  |  |  |  |  |  |   |  |  |  |  |  |  |     | A    |  |  |
| Approach Delay (s/veh)                  |  |  |  |  |  |   |  |  |  |  |  |  | 0.0 |      |  |  |
| Approach LOS                            |  |  |  |  |  |   |  |  |  |  |  |  |     |      |  |  |

|                         |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | SET                                                                               | NWL                                                                               | NWT                                                                               | NEL                                                                               | NER                                                                               |
| Lane Group Flow (vph)   | 355                                                                               | 84                                                                                | 130                                                                               | 69                                                                                | 118                                                                               |
| v/c Ratio               | 0.15                                                                              | 0.10                                                                              | 0.04                                                                              | 0.45                                                                              | 0.30                                                                              |
| Control Delay           | 4.5                                                                               | 3.3                                                                               | 2.7                                                                               | 55.8                                                                              | 8.2                                                                               |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |
| Total Delay             | 4.5                                                                               | 3.3                                                                               | 2.7                                                                               | 55.8                                                                              | 8.2                                                                               |
| Queue Length 50th (ft)  | 26                                                                                | 10                                                                                | 8                                                                                 | 47                                                                                | 0                                                                                 |
| Queue Length 95th (ft)  | 44                                                                                | 22                                                                                | 15                                                                                | 83                                                                                | 36                                                                                |
| Internal Link Dist (ft) | 866                                                                               |                                                                                   | 1660                                                                              | 296                                                                               |                                                                                   |
| Turn Bay Length (ft)    |                                                                                   | 80                                                                                |                                                                                   |                                                                                   | 250                                                                               |
| Base Capacity (vph)     | 2365                                                                              | 947                                                                               | 2926                                                                              | 455                                                                               | 548                                                                               |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Reduced v/c Ratio       | 0.15                                                                              | 0.09                                                                              | 0.04                                                                              | 0.15                                                                              | 0.22                                                                              |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

# Future Background 2024 - AM.syn

## 2: Skelton Rd & Shallowford Rd

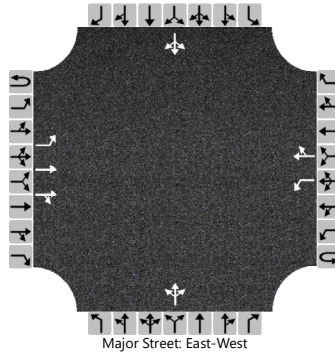
|                                   |  |  |  |  |  |  |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Movement                          | SET                                                                               | SER                                                                               | NWL                                                                               | NWT                                                                               | NEL                                                                               | NER                                                                               |
| Lane Configurations               | ↑↑                                                                                |                                                                                   | ↵                                                                                 | ↑↑                                                                                | ↵                                                                                 | ↵                                                                                 |
| Traffic Volume (vph)              | 186                                                                               | 109                                                                               | 70                                                                                | 108                                                                               | 57                                                                                | 98                                                                                |
| Future Volume (vph)               | 186                                                                               | 109                                                                               | 70                                                                                | 108                                                                               | 57                                                                                | 98                                                                                |
| Ideal Flow (vphpl)                | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              |
| Total Lost time (s)               | 6.5                                                                               |                                                                                   | 6.5                                                                               | 6.5                                                                               | 6.7                                                                               | 6.5                                                                               |
| Lane Util. Factor                 | 0.95                                                                              |                                                                                   | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                              |
| Frt                               | 0.94                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.85                                                                              |
| Flt Protected                     | 1.00                                                                              |                                                                                   | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              |
| Satd. Flow (prot)                 | 3343                                                                              |                                                                                   | 1770                                                                              | 3539                                                                              | 1770                                                                              | 1583                                                                              |
| Flt Permitted                     | 1.00                                                                              |                                                                                   | 0.54                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              |
| Satd. Flow (perm)                 | 3343                                                                              |                                                                                   | 1005                                                                              | 3539                                                                              | 1770                                                                              | 1583                                                                              |
| Peak-hour factor, PHF             | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              |
| Adj. Flow (vph)                   | 224                                                                               | 131                                                                               | 84                                                                                | 130                                                                               | 69                                                                                | 118                                                                               |
| RTOR Reduction (vph)              | 40                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 102                                                                               |
| Lane Group Flow (vph)             | 315                                                                               | 0                                                                                 | 84                                                                                | 130                                                                               | 69                                                                                | 16                                                                                |
| Turn Type                         | NA                                                                                |                                                                                   | D.P+P                                                                             | NA                                                                                | Prot                                                                              | pm+ov                                                                             |
| Protected Phases                  | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 | 4                                                                                 | 1                                                                                 |
| Permitted Phases                  |                                                                                   |                                                                                   | 2                                                                                 |                                                                                   |                                                                                   | 4                                                                                 |
| Actuated Green, G (s)             | 75.2                                                                              |                                                                                   | 81.8                                                                              | 88.3                                                                              | 8.5                                                                               | 15.1                                                                              |
| Effective Green, g (s)            | 75.2                                                                              |                                                                                   | 81.8                                                                              | 88.3                                                                              | 8.5                                                                               | 15.1                                                                              |
| Actuated g/C Ratio                | 0.68                                                                              |                                                                                   | 0.74                                                                              | 0.80                                                                              | 0.08                                                                              | 0.14                                                                              |
| Clearance Time (s)                | 6.5                                                                               |                                                                                   | 6.5                                                                               | 6.5                                                                               | 6.7                                                                               | 6.5                                                                               |
| Vehicle Extension (s)             | 6.0                                                                               |                                                                                   | 3.0                                                                               | 6.0                                                                               | 3.0                                                                               | 3.0                                                                               |
| Lane Grp Cap (vph)                | 2285                                                                              |                                                                                   | 793                                                                               | 2840                                                                              | 136                                                                               | 217                                                                               |
| v/s Ratio Prot                    | c0.09                                                                             |                                                                                   | c0.01                                                                             | 0.04                                                                              | c0.04                                                                             | 0.00                                                                              |
| v/s Ratio Perm                    |                                                                                   |                                                                                   | 0.07                                                                              |                                                                                   |                                                                                   | 0.01                                                                              |
| v/c Ratio                         | 0.14                                                                              |                                                                                   | 0.11                                                                              | 0.05                                                                              | 0.51                                                                              | 0.07                                                                              |
| Uniform Delay, d1                 | 6.1                                                                               |                                                                                   | 3.8                                                                               | 2.2                                                                               | 48.7                                                                              | 41.4                                                                              |
| Progression Factor                | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Incremental Delay, d2             | 0.1                                                                               |                                                                                   | 0.1                                                                               | 0.0                                                                               | 3.0                                                                               | 0.1                                                                               |
| Delay (s)                         | 6.2                                                                               |                                                                                   | 3.9                                                                               | 2.3                                                                               | 51.7                                                                              | 41.5                                                                              |
| Level of Service                  | A                                                                                 |                                                                                   | A                                                                                 | A                                                                                 | D                                                                                 | D                                                                                 |
| Approach Delay (s)                | 6.2                                                                               |                                                                                   |                                                                                   | 2.9                                                                               | 45.3                                                                              |                                                                                   |
| Approach LOS                      | A                                                                                 |                                                                                   |                                                                                   | A                                                                                 | D                                                                                 |                                                                                   |
| <b>Intersection Summary</b>       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 2000 Control Delay            |                                                                                   |                                                                                   | 14.9                                                                              |                                                                                   | HCM 2000 Level of Service                                                         | B                                                                                 |
| HCM 2000 Volume to Capacity ratio |                                                                                   |                                                                                   | 0.17                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Actuated Cycle Length (s)         |                                                                                   |                                                                                   | 110.0                                                                             |                                                                                   | Sum of lost time (s)                                                              | 19.7                                                                              |
| Intersection Capacity Utilization |                                                                                   |                                                                                   | 34.8%                                                                             |                                                                                   | ICU Level of Service                                                              | A                                                                                 |
| Analysis Period (min)             |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |
| c Critical Lane Group             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

# HCS7 Two-Way Stop-Control Report

## General Information

|                          |                        |                            |                      |
|--------------------------|------------------------|----------------------------|----------------------|
| Analyst                  | A. Simmons             | Intersection               | Shallowford @ Albert |
| Agency/Co.               | Keck & Wood            | Jurisdiction               | City of Gainesville  |
| Date Performed           | 8/31/2021              | East/West Street           | Shallowford Rd       |
| Analysis Year            | 2024                   | North/South Street         | Albert St            |
| Time Analyzed            | AM Peak                | Peak Hour Factor           | 0.85                 |
| Intersection Orientation | East-West              | Analysis Time Period (hrs) | 0.25                 |
| Project Description      | Future Background 2024 |                            |                      |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |    | Westbound |   |     |    | Northbound |   |     |   | Southbound |    |     |    |
|----------------------------|-----------|---|-----|----|-----------|---|-----|----|------------|---|-----|---|------------|----|-----|----|
| Movement                   | U         | L | T   | R  | U         | L | T   | R  | U          | L | T   | R | U          | L  | T   | R  |
| Priority                   | 1U        | 1 | 2   | 3  | 4U        | 4 | 5   | 6  |            | 7 | 8   | 9 |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 1 | 2   | 0  | 0         | 1 | 1   | 0  |            | 0 | 1   | 0 |            | 0  | 1   | 0  |
| Configuration              |           | L | T   | TR |           | L |     | TR |            |   | LTR |   |            |    | LTR |    |
| Volume (veh/h)             |           | 6 | 279 | 0  | 0         | 0 | 191 | 1  |            | 0 | 0   | 0 |            | 0  | 0   | 1  |
| Percent Heavy Vehicles (%) |           | 2 |     |    | 2         | 2 |     |    |            | 2 | 2   | 2 |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |   |     |    |           |   |     |    |            |   |     |   |            |    |     |    |
| Percent Grade (%)          |           |   |     |    |           |   |     |    | 0          |   |     |   | 0          |    |     |    |
| Right Turn Channelized     |           |   |     |    |           |   |     |    |            |   |     |   |            |    |     |    |
| Median Type   Storage      | Undivided |   |     |    |           |   |     |    |            |   |     |   |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.5  | 6.5  | 6.9  |  | 7.5  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.14 |  |  |  | 4.14 |  |  |  | 7.54 | 6.54 | 6.94 |  | 7.54 | 6.54 | 6.24 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |  |  |     |      |  |  |  |  |   |  |     |  |      |  |
|-----------------------------------------|-----|------|--|--|-----|------|--|--|--|--|---|--|-----|--|------|--|
| Flow Rate, v (veh/h)                    |     | 7    |  |  |     | 0    |  |  |  |  | 0 |  |     |  | 1    |  |
| Capacity, c (veh/h)                     |     | 1340 |  |  |     | 1228 |  |  |  |  |   |  |     |  | 813  |  |
| v/c Ratio                               |     | 0.01 |  |  |     | 0.00 |  |  |  |  |   |  |     |  | 0.00 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.0  |  |  |     | 0.0  |  |  |  |  |   |  |     |  | 0.0  |  |
| Control Delay (s/veh)                   |     | 7.7  |  |  |     | 7.9  |  |  |  |  |   |  |     |  | 9.4  |  |
| Level of Service (LOS)                  |     | A    |  |  |     | A    |  |  |  |  |   |  |     |  | A    |  |
| Approach Delay (s/veh)                  | 0.2 |      |  |  | 0.0 |      |  |  |  |  |   |  | 9.4 |  |      |  |
| Approach LOS                            |     |      |  |  |     |      |  |  |  |  |   |  | A   |  |      |  |

# HCS7 Two-Way Stop-Control Report

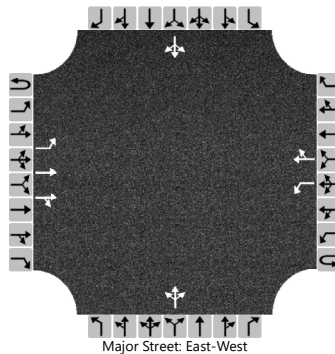
## General Information

|                          |                        |
|--------------------------|------------------------|
| Analyst                  | A. Simmons             |
| Agency/Co.               | Keck & Wood            |
| Date Performed           | 8/31/2021              |
| Analysis Year            | 2024                   |
| Time Analyzed            | AM Peak                |
| Intersection Orientation | East-West              |
| Project Description      | Future Background 2024 |

## Site Information

|                            |                           |
|----------------------------|---------------------------|
| Intersection               | Shallowford @ Regions Dwy |
| Jurisdiction               | City of Gainesville       |
| East/West Street           | Shallowford Rd            |
| North/South Street         | Regions Dwy               |
| Peak Hour Factor           | 0.85                      |
| Analysis Time Period (hrs) | 0.25                      |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |    | Westbound |   |     |    | Northbound |   |     |   | Southbound |    |     |    |
|----------------------------|-----------|---|-----|----|-----------|---|-----|----|------------|---|-----|---|------------|----|-----|----|
| Movement                   | U         | L | T   | R  | U         | L | T   | R  | U          | L | T   | R | U          | L  | T   | R  |
| Priority                   | 1U        | 1 | 2   | 3  | 4U        | 4 | 5   | 6  |            | 7 | 8   | 9 |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 1 | 2   | 0  | 0         | 1 | 1   | 0  |            | 0 | 1   | 0 |            | 0  | 1   | 0  |
| Configuration              |           | L | T   | TR |           | L |     | TR |            |   | LTR |   |            |    | LTR |    |
| Volume (veh/h)             |           | 4 | 273 | 2  | 0         | 1 | 184 | 4  |            | 0 | 0   | 0 |            | 4  | 0   | 5  |
| Percent Heavy Vehicles (%) |           | 2 |     |    | 2         | 2 |     |    |            | 2 | 2   | 2 |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |   |     |    |           |   |     |    |            |   |     |   |            |    |     |    |
| Percent Grade (%)          |           |   |     |    |           |   |     |    | 0          |   |     |   | 0          |    |     |    |
| Right Turn Channelized     |           |   |     |    |           |   |     |    |            |   |     |   |            |    |     |    |
| Median Type   Storage      | Undivided |   |     |    |           |   |     |    |            |   |     |   |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.5  | 6.5  | 6.9  |  | 7.5  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.14 |  |  |  | 4.14 |  |  |  | 7.54 | 6.54 | 6.94 |  | 7.54 | 6.54 | 6.24 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |  |  |     |      |  |  |  |  |   |  |      |  |      |  |
|-----------------------------------------|-----|------|--|--|-----|------|--|--|--|--|---|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 5    |  |  |     | 1    |  |  |  |  | 0 |  |      |  | 11   |  |
| Capacity, c (veh/h)                     |     | 1345 |  |  |     | 1233 |  |  |  |  |   |  |      |  | 667  |  |
| v/c Ratio                               |     | 0.00 |  |  |     | 0.00 |  |  |  |  |   |  |      |  | 0.02 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.0  |  |  |     | 0.0  |  |  |  |  |   |  |      |  | 0.0  |  |
| Control Delay (s/veh)                   |     | 7.7  |  |  |     | 7.9  |  |  |  |  |   |  |      |  | 10.5 |  |
| Level of Service (LOS)                  |     | A    |  |  |     | A    |  |  |  |  |   |  |      |  | B    |  |
| Approach Delay (s/veh)                  | 0.1 |      |  |  | 0.0 |      |  |  |  |  |   |  | 10.5 |  |      |  |
| Approach LOS                            |     |      |  |  |     |      |  |  |  |  |   |  | B    |  |      |  |



# HCS7 Two-Way Stop-Control Report

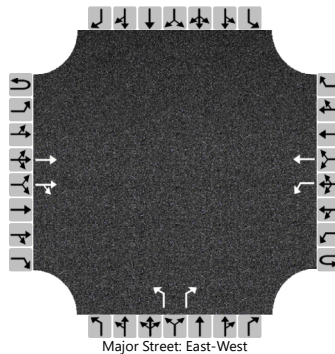
## General Information

|                          |                        |
|--------------------------|------------------------|
| Analyst                  | A. Simmons             |
| Agency/Co.               | Keck & Wood            |
| Date Performed           | 8/31/2021              |
| Analysis Year            | 2024                   |
| Time Analyzed            | AM Peak                |
| Intersection Orientation | East-West              |
| Project Description      | Future Background 2024 |

## Site Information

|                            |                          |
|----------------------------|--------------------------|
| Intersection               | Shallowford @ Strip Mall |
| Jurisdiction               | City of Gainesville      |
| East/West Street           | Shallowford Rd           |
| North/South Street         | Strip Mall (Dwy #3)      |
| Peak Hour Factor           | 0.85                     |
| Analysis Time Period (hrs) | 0.25                     |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |    | Westbound |   |     |   | Northbound |   |   |   | Southbound |    |    |    |
|----------------------------|-----------|---|-----|----|-----------|---|-----|---|------------|---|---|---|------------|----|----|----|
| Movement                   | U         | L | T   | R  | U         | L | T   | R | U          | L | T | R | U          | L  | T  | R  |
| Priority                   | 1U        | 1 | 2   | 3  | 4U        | 4 | 5   | 6 |            | 7 | 8 | 9 |            | 10 | 11 | 12 |
| Number of Lanes            | 0         | 0 | 2   | 0  | 0         | 1 | 1   | 0 |            | 1 | 0 | 1 |            | 0  | 0  | 0  |
| Configuration              |           |   | T   | TR |           | L | T   |   |            | L |   | R |            |    |    |    |
| Volume (veh/h)             |           |   | 274 | 1  | 0         | 1 | 188 |   |            | 0 |   | 0 |            |    |    |    |
| Percent Heavy Vehicles (%) |           |   |     |    | 2         | 2 |     |   |            | 2 |   | 2 |            |    |    |    |
| Proportion Time Blocked    |           |   |     |    |           |   |     |   |            |   |   |   |            |    |    |    |
| Percent Grade (%)          |           |   |     |    |           |   |     |   | 0          |   |   |   |            |    |    |    |
| Right Turn Channelized     |           |   |     |    |           |   |     |   | No         |   |   |   |            |    |    |    |
| Median Type   Storage      | Undivided |   |     |    |           |   |     |   |            |   |   |   |            |    |    |    |

## Critical and Follow-up Headways

|                              |  |  |  |  |  |      |  |  |  |      |  |      |  |  |  |  |
|------------------------------|--|--|--|--|--|------|--|--|--|------|--|------|--|--|--|--|
| Base Critical Headway (sec)  |  |  |  |  |  | 4.1  |  |  |  | 7.5  |  | 6.9  |  |  |  |  |
| Critical Headway (sec)       |  |  |  |  |  | 4.14 |  |  |  | 6.84 |  | 6.94 |  |  |  |  |
| Base Follow-Up Headway (sec) |  |  |  |  |  | 2.2  |  |  |  | 3.5  |  | 3.3  |  |  |  |  |
| Follow-Up Headway (sec)      |  |  |  |  |  | 2.22 |  |  |  | 3.52 |  | 3.32 |  |  |  |  |

## Delay, Queue Length, and Level of Service

|                                         |  |  |  |  |     |      |  |  |  |      |  |      |  |  |  |  |
|-----------------------------------------|--|--|--|--|-----|------|--|--|--|------|--|------|--|--|--|--|
| Flow Rate, v (veh/h)                    |  |  |  |  |     | 1    |  |  |  | 0    |  | 0    |  |  |  |  |
| Capacity, c (veh/h)                     |  |  |  |  |     | 1233 |  |  |  | 467  |  | 855  |  |  |  |  |
| v/c Ratio                               |  |  |  |  |     | 0.00 |  |  |  | 0.00 |  | 0.00 |  |  |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |  |  |  |  |     | 0.0  |  |  |  | 0.0  |  | 0.0  |  |  |  |  |
| Control Delay (s/veh)                   |  |  |  |  |     | 7.9  |  |  |  | 12.7 |  | 9.2  |  |  |  |  |
| Level of Service (LOS)                  |  |  |  |  |     | A    |  |  |  | B    |  | A    |  |  |  |  |
| Approach Delay (s/veh)                  |  |  |  |  | 0.0 |      |  |  |  |      |  |      |  |  |  |  |
| Approach LOS                            |  |  |  |  |     |      |  |  |  |      |  |      |  |  |  |  |

# Future Background 2024 - AM.syn

## 6: Pearl Nix Pkwy & Shallowford Rd/West End Ave

|                         |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                                | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Group Flow (vph)   | 51                                                                                | 61                                                                                | 220                                                                               | 57                                                                                | 51                                                                                | 139                                                                               | 222                                                                                | 5                                                                                   | 31                                                                                  | 189                                                                                 | 40                                                                                  |
| v/c Ratio               | 0.18                                                                              | 0.14                                                                              | 0.21                                                                              | 0.23                                                                              | 0.13                                                                              | 0.31                                                                              | 0.11                                                                               | 0.01                                                                                | 0.16                                                                                | 0.30                                                                                | 0.09                                                                                |
| Control Delay           | 20.5                                                                              | 21.3                                                                              | 1.2                                                                               | 32.8                                                                              | 0.7                                                                               | 14.8                                                                              | 13.1                                                                               | 0.0                                                                                 | 33.3                                                                                | 28.2                                                                                | 0.4                                                                                 |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Delay             | 20.5                                                                              | 21.3                                                                              | 1.2                                                                               | 32.8                                                                              | 0.7                                                                               | 14.8                                                                              | 13.1                                                                               | 0.0                                                                                 | 33.3                                                                                | 28.2                                                                                | 0.4                                                                                 |
| Queue Length 50th (ft)  | 16                                                                                | 20                                                                                | 0                                                                                 | 23                                                                                | 0                                                                                 | 28                                                                                | 23                                                                                 | 0                                                                                   | 13                                                                                  | 38                                                                                  | 0                                                                                   |
| Queue Length 95th (ft)  | 39                                                                                | 46                                                                                | 14                                                                                | 56                                                                                | 0                                                                                 | 56                                                                                | 60                                                                                 | 0                                                                                   | 37                                                                                  | 69                                                                                  | 0                                                                                   |
| Internal Link Dist (ft) | 1660                                                                              |                                                                                   |                                                                                   | 848                                                                               |                                                                                   |                                                                                   | 1028                                                                               |                                                                                     |                                                                                     | 2617                                                                                |                                                                                     |
| Turn Bay Length (ft)    | 80                                                                                |                                                                                   |                                                                                   |                                                                                   | 90                                                                                |                                                                                   | 430                                                                                |                                                                                     | 225                                                                                 |                                                                                     | 145                                                                                 |
| Base Capacity (vph)     | 370                                                                               | 879                                                                               | 1532                                                                              | 408                                                                               | 514                                                                               | 1516                                                                              | 3539                                                                               | 1583                                                                                | 259                                                                                 | 1711                                                                                | 878                                                                                 |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Reduced v/c Ratio       | 0.14                                                                              | 0.07                                                                              | 0.14                                                                              | 0.14                                                                              | 0.10                                                                              | 0.09                                                                              | 0.06                                                                               | 0.00                                                                                | 0.12                                                                                | 0.11                                                                                | 0.05                                                                                |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

# Future Background 2024 - AM.syn

## 6: Pearl Nix Pkwy & Shallowford Rd/West End Ave

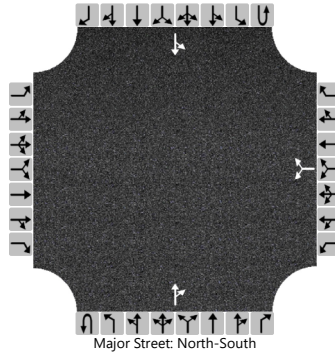
|                                   |  |  |  |  |  |  |   |  |  |  |  |  |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                          | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations               |  |  |  |                                                                                   |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)              | 42                                                                                | 51                                                                                | 183                                                                               | 0                                                                                 | 47                                                                                | 42                                                                                | 115                                                                                 | 184                                                                                 | 4                                                                                   | 26                                                                                  | 157                                                                                 | 33                                                                                  |
| Future Volume (vph)               | 42                                                                                | 51                                                                                | 183                                                                               | 0                                                                                 | 47                                                                                | 42                                                                                | 115                                                                                 | 184                                                                                 | 4                                                                                   | 26                                                                                  | 157                                                                                 | 33                                                                                  |
| Ideal Flow (vphpl)                | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Total Lost time (s)               | 5.2                                                                               | 7.0                                                                               | 6.3                                                                               |                                                                                   | 7.0                                                                               | 7.0                                                                               | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 |
| Lane Util. Factor                 | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                | 0.95                                                                                | 1.00                                                                                |
| Frt                               | 1.00                                                                              | 1.00                                                                              | 0.85                                                                              |                                                                                   | 1.00                                                                              | 0.85                                                                              | 1.00                                                                                | 1.00                                                                                | 0.85                                                                                | 1.00                                                                                | 1.00                                                                                | 0.85                                                                                |
| Flt Protected                     | 0.95                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                |
| Satd. Flow (prot)                 | 1770                                                                              | 1863                                                                              | 1583                                                                              |                                                                                   | 1863                                                                              | 1583                                                                              | 1770                                                                                | 3539                                                                                | 1583                                                                                | 1770                                                                                | 3539                                                                                | 1583                                                                                |
| Flt Permitted                     | 0.39                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                |
| Satd. Flow (perm)                 | 724                                                                               | 1863                                                                              | 1583                                                                              |                                                                                   | 1863                                                                              | 1583                                                                              | 1770                                                                                | 3539                                                                                | 1583                                                                                | 1770                                                                                | 3539                                                                                | 1583                                                                                |
| Peak-hour factor, PHF             | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              | 0.83                                                                                | 0.83                                                                                | 0.83                                                                                | 0.83                                                                                | 0.83                                                                                | 0.83                                                                                |
| Adj. Flow (vph)                   | 51                                                                                | 61                                                                                | 220                                                                               | 0                                                                                 | 57                                                                                | 51                                                                                | 139                                                                                 | 222                                                                                 | 5                                                                                   | 31                                                                                  | 189                                                                                 | 40                                                                                  |
| RTOR Reduction (vph)              | 0                                                                                 | 0                                                                                 | 114                                                                               | 0                                                                                 | 0                                                                                 | 47                                                                                | 0                                                                                   | 0                                                                                   | 3                                                                                   | 0                                                                                   | 0                                                                                   | 34                                                                                  |
| Lane Group Flow (vph)             | 51                                                                                | 61                                                                                | 106                                                                               | 0                                                                                 | 57                                                                                | 4                                                                                 | 139                                                                                 | 222                                                                                 | 2                                                                                   | 31                                                                                  | 189                                                                                 | 6                                                                                   |
| Turn Type                         | pm+pt                                                                             | NA                                                                                | pm+ov                                                                             |                                                                                   | NA                                                                                | Perm                                                                              | Prot                                                                                | NA                                                                                  | Perm                                                                                | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases                  | 7                                                                                 | 4                                                                                 | 1 10                                                                              |                                                                                   | 8                                                                                 |                                                                                   | 1 10                                                                                | 6                                                                                   |                                                                                     | 5                                                                                   | 2                                                                                   |                                                                                     |
| Permitted Phases                  | 4                                                                                 |                                                                                   | 4                                                                                 | 8                                                                                 |                                                                                   | 8                                                                                 |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 2                                                                                   |
| Actuated Green, G (s)             | 15.2                                                                              | 15.2                                                                              | 34.8                                                                              |                                                                                   | 6.1                                                                               | 6.1                                                                               | 19.6                                                                                | 34.7                                                                                | 34.7                                                                                | 2.7                                                                                 | 11.5                                                                                | 11.5                                                                                |
| Effective Green, g (s)            | 15.2                                                                              | 15.2                                                                              | 34.8                                                                              |                                                                                   | 6.1                                                                               | 6.1                                                                               | 19.6                                                                                | 34.7                                                                                | 34.7                                                                                | 2.7                                                                                 | 11.5                                                                                | 11.5                                                                                |
| Actuated g/C Ratio                | 0.21                                                                              | 0.21                                                                              | 0.48                                                                              |                                                                                   | 0.08                                                                              | 0.08                                                                              | 0.27                                                                                | 0.48                                                                                | 0.48                                                                                | 0.04                                                                                | 0.16                                                                                | 0.16                                                                                |
| Clearance Time (s)                | 5.2                                                                               | 7.0                                                                               |                                                                                   |                                                                                   | 7.0                                                                               | 7.0                                                                               |                                                                                     | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 |
| Vehicle Extension (s)             | 2.1                                                                               | 2.5                                                                               |                                                                                   |                                                                                   | 3.1                                                                               | 3.1                                                                               |                                                                                     | 6.0                                                                                 | 6.0                                                                                 | 3.1                                                                                 | 5.0                                                                                 | 5.0                                                                                 |
| Lane Grp Cap (vph)                | 208                                                                               | 392                                                                               | 901                                                                               |                                                                                   | 157                                                                               | 133                                                                               | 480                                                                                 | 1700                                                                                | 760                                                                                 | 66                                                                                  | 563                                                                                 | 252                                                                                 |
| v/s Ratio Prot                    | c0.01                                                                             | 0.03                                                                              | 0.03                                                                              |                                                                                   | c0.03                                                                             |                                                                                   | c0.08                                                                               | c0.06                                                                               |                                                                                     | 0.02                                                                                | c0.05                                                                               |                                                                                     |
| v/s Ratio Perm                    | 0.04                                                                              |                                                                                   | 0.04                                                                              |                                                                                   |                                                                                   | 0.00                                                                              |                                                                                     |                                                                                     | 0.00                                                                                |                                                                                     |                                                                                     | 0.00                                                                                |
| v/c Ratio                         | 0.25                                                                              | 0.16                                                                              | 0.12                                                                              |                                                                                   | 0.36                                                                              | 0.03                                                                              | 0.29                                                                                | 0.13                                                                                | 0.00                                                                                | 0.47                                                                                | 0.34                                                                                | 0.03                                                                                |
| Uniform Delay, d1                 | 23.4                                                                              | 23.3                                                                              | 10.3                                                                              |                                                                                   | 31.2                                                                              | 30.3                                                                              | 20.8                                                                                | 10.4                                                                                | 9.8                                                                                 | 34.0                                                                                | 27.0                                                                                | 25.6                                                                                |
| Progression Factor                | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Incremental Delay, d2             | 0.3                                                                               | 0.1                                                                               | 0.0                                                                               |                                                                                   | 1.5                                                                               | 0.1                                                                               | 0.1                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 5.4                                                                                 | 0.7                                                                                 | 0.1                                                                                 |
| Delay (s)                         | 23.6                                                                              | 23.4                                                                              | 10.3                                                                              |                                                                                   | 32.7                                                                              | 30.4                                                                              | 20.9                                                                                | 10.5                                                                                | 9.8                                                                                 | 39.4                                                                                | 27.7                                                                                | 25.7                                                                                |
| Level of Service                  | C                                                                                 | C                                                                                 | B                                                                                 |                                                                                   | C                                                                                 | C                                                                                 | C                                                                                   | B                                                                                   | A                                                                                   | D                                                                                   | C                                                                                   | C                                                                                   |
| Approach Delay (s)                |                                                                                   | 14.7                                                                              |                                                                                   |                                                                                   | 31.6                                                                              |                                                                                   |                                                                                     | 14.4                                                                                |                                                                                     |                                                                                     | 28.8                                                                                |                                                                                     |
| Approach LOS                      |                                                                                   | B                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                     | B                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| <b>Intersection Summary</b>       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 2000 Control Delay            |                                                                                   |                                                                                   | 19.8                                                                              |                                                                                   |                                                                                   |                                                                                   | HCM 2000 Level of Service                                                           |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |                                                                                     |
| HCM 2000 Volume to Capacity ratio |                                                                                   |                                                                                   | 0.32                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Actuated Cycle Length (s)         |                                                                                   |                                                                                   | 72.2                                                                              |                                                                                   |                                                                                   |                                                                                   | Sum of lost time (s)                                                                |                                                                                     |                                                                                     | 31.1                                                                                |                                                                                     |                                                                                     |
| Intersection Capacity Utilization |                                                                                   |                                                                                   | 42.0%                                                                             |                                                                                   |                                                                                   |                                                                                   | ICU Level of Service                                                                |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |
| Analysis Period (min)             |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| c Critical Lane Group             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

# HCS7 Two-Way Stop-Control Report

## General Information

|                          |                        |                            |                         |
|--------------------------|------------------------|----------------------------|-------------------------|
| Analyst                  | A. Simmons             | Intersection               | Skelton Rd @ U-Haul Dwy |
| Agency/Co.               | Keck & Wood            | Jurisdiction               | City of Gainesville     |
| Date Performed           | 8/31/2021              | East/West Street           | U-Haul Dwy              |
| Analysis Year            | 2024                   | North/South Street         | Skelton Rd              |
| Time Analyzed            | PM Peak                | Peak Hour Factor           | 0.85                    |
| Intersection Orientation | North-South            | Analysis Time Period (hrs) | 0.25                    |
| Project Description      | Future Background 2024 |                            |                         |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |    |    | Westbound |   |    |   | Northbound |   |     |    | Southbound |    |     |   |
|----------------------------|-----------|----|----|----|-----------|---|----|---|------------|---|-----|----|------------|----|-----|---|
| Movement                   | U         | L  | T  | R  | U         | L | T  | R | U          | L | T   | R  | U          | L  | T   | R |
| Priority                   |           | 10 | 11 | 12 |           | 7 | 8  | 9 | 1U         | 1 | 2   | 3  | 4U         | 4  | 5   | 6 |
| Number of Lanes            |           | 0  | 0  | 0  |           | 0 | 1  | 0 | 0          | 0 | 1   | 0  | 0          | 0  | 1   | 0 |
| Configuration              |           |    |    |    |           |   | LR |   |            |   |     | TR |            | LT |     |   |
| Volume (veh/h)             |           |    |    |    |           | 0 |    | 0 |            |   | 306 | 0  |            | 1  | 294 |   |
| Percent Heavy Vehicles (%) |           |    |    |    |           | 2 |    | 2 |            |   |     |    |            | 2  |     |   |
| Proportion Time Blocked    |           |    |    |    |           |   |    |   |            |   |     |    |            |    |     |   |
| Percent Grade (%)          |           |    |    |    | 0         |   |    |   |            |   |     |    |            |    |     |   |
| Right Turn Channelized     |           |    |    |    |           |   |    |   |            |   |     |    |            |    |     |   |
| Median Type   Storage      | Undivided |    |    |    |           |   |    |   |            |   |     |    |            |    |     |   |

## Critical and Follow-up Headways

|                              |  |  |  |  |  |      |  |      |  |  |  |  |  |      |  |  |
|------------------------------|--|--|--|--|--|------|--|------|--|--|--|--|--|------|--|--|
| Base Critical Headway (sec)  |  |  |  |  |  | 7.1  |  | 6.2  |  |  |  |  |  | 4.1  |  |  |
| Critical Headway (sec)       |  |  |  |  |  | 6.42 |  | 6.22 |  |  |  |  |  | 4.12 |  |  |
| Base Follow-Up Headway (sec) |  |  |  |  |  | 3.5  |  | 3.3  |  |  |  |  |  | 2.2  |  |  |
| Follow-Up Headway (sec)      |  |  |  |  |  | 3.52 |  | 3.32 |  |  |  |  |  | 2.22 |  |  |

## Delay, Queue Length, and Level of Service

|                                         |  |  |  |  |  |   |  |  |  |  |  |  |     |      |  |  |
|-----------------------------------------|--|--|--|--|--|---|--|--|--|--|--|--|-----|------|--|--|
| Flow Rate, v (veh/h)                    |  |  |  |  |  | 0 |  |  |  |  |  |  |     | 1    |  |  |
| Capacity, c (veh/h)                     |  |  |  |  |  |   |  |  |  |  |  |  |     | 1199 |  |  |
| v/c Ratio                               |  |  |  |  |  |   |  |  |  |  |  |  |     | 0.00 |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |  |  |  |  |  |   |  |  |  |  |  |  |     | 0.0  |  |  |
| Control Delay (s/veh)                   |  |  |  |  |  |   |  |  |  |  |  |  |     | 8.0  |  |  |
| Level of Service (LOS)                  |  |  |  |  |  |   |  |  |  |  |  |  |     | A    |  |  |
| Approach Delay (s/veh)                  |  |  |  |  |  |   |  |  |  |  |  |  | 0.0 |      |  |  |
| Approach LOS                            |  |  |  |  |  |   |  |  |  |  |  |  |     |      |  |  |

|                         |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | SET                                                                               | NWL                                                                               | NWT                                                                               | NEL                                                                               | NER                                                                               |
| Lane Group Flow (vph)   | 578                                                                               | 208                                                                               | 385                                                                               | 169                                                                               | 266                                                                               |
| v/c Ratio               | 0.27                                                                              | 0.34                                                                              | 0.15                                                                              | 0.68                                                                              | 0.42                                                                              |
| Control Delay           | 10.8                                                                              | 6.6                                                                               | 4.8                                                                               | 62.5                                                                              | 5.5                                                                               |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |
| Total Delay             | 10.8                                                                              | 6.6                                                                               | 4.8                                                                               | 62.5                                                                              | 5.5                                                                               |
| Queue Length 50th (ft)  | 89                                                                                | 39                                                                                | 37                                                                                | 126                                                                               | 0                                                                                 |
| Queue Length 95th (ft)  | 150                                                                               | 77                                                                                | 65                                                                                | 190                                                                               | 56                                                                                |
| Internal Link Dist (ft) | 866                                                                               |                                                                                   | 1660                                                                              | 296                                                                               |                                                                                   |
| Turn Bay Length (ft)    |                                                                                   | 80                                                                                |                                                                                   |                                                                                   | 250                                                                               |
| Base Capacity (vph)     | 2104                                                                              | 734                                                                               | 2653                                                                              | 491                                                                               | 727                                                                               |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Reduced v/c Ratio       | 0.27                                                                              | 0.28                                                                              | 0.15                                                                              | 0.34                                                                              | 0.37                                                                              |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |



# Future Background 2024 - PM.syn

## 2: Skelton Rd & Shallowford Rd

|                                   |  |  |  |  |  |  |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Movement                          | SET                                                                               | SER                                                                               | NWL                                                                               | NWT                                                                               | NEL                                                                               | NER                                                                               |
| Lane Configurations               | ↑↑                                                                                |                                                                                   | ↵                                                                                 | ↑↑                                                                                | ↵                                                                                 | ↵                                                                                 |
| Traffic Volume (vph)              | 397                                                                               | 157                                                                               | 200                                                                               | 370                                                                               | 162                                                                               | 255                                                                               |
| Future Volume (vph)               | 397                                                                               | 157                                                                               | 200                                                                               | 370                                                                               | 162                                                                               | 255                                                                               |
| Ideal Flow (vphpl)                | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              |
| Total Lost time (s)               | 6.5                                                                               |                                                                                   | 6.5                                                                               | 6.5                                                                               | 6.7                                                                               | 6.5                                                                               |
| Lane Util. Factor                 | 0.95                                                                              |                                                                                   | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                              |
| Frt                               | 0.96                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.85                                                                              |
| Flt Protected                     | 1.00                                                                              |                                                                                   | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              |
| Satd. Flow (prot)                 | 3389                                                                              |                                                                                   | 1770                                                                              | 3539                                                                              | 1770                                                                              | 1583                                                                              |
| Flt Permitted                     | 1.00                                                                              |                                                                                   | 0.42                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              |
| Satd. Flow (perm)                 | 3389                                                                              |                                                                                   | 777                                                                               | 3539                                                                              | 1770                                                                              | 1583                                                                              |
| Peak-hour factor, PHF             | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              |
| Adj. Flow (vph)                   | 414                                                                               | 164                                                                               | 208                                                                               | 385                                                                               | 169                                                                               | 266                                                                               |
| RTOR Reduction (vph)              | 23                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 207                                                                               |
| Lane Group Flow (vph)             | 555                                                                               | 0                                                                                 | 208                                                                               | 385                                                                               | 169                                                                               | 59                                                                                |
| Turn Type                         | NA                                                                                |                                                                                   | D.P+P                                                                             | NA                                                                                | Prot                                                                              | pm+ov                                                                             |
| Protected Phases                  | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 | 4                                                                                 | 1                                                                                 |
| Permitted Phases                  |                                                                                   |                                                                                   | 2                                                                                 |                                                                                   |                                                                                   | 4                                                                                 |
| Actuated Green, G (s)             | 73.8                                                                              |                                                                                   | 83.5                                                                              | 90.0                                                                              | 16.8                                                                              | 26.5                                                                              |
| Effective Green, g (s)            | 73.8                                                                              |                                                                                   | 83.5                                                                              | 90.0                                                                              | 16.8                                                                              | 26.5                                                                              |
| Actuated g/C Ratio                | 0.61                                                                              |                                                                                   | 0.70                                                                              | 0.75                                                                              | 0.14                                                                              | 0.22                                                                              |
| Clearance Time (s)                | 6.5                                                                               |                                                                                   | 6.5                                                                               | 6.5                                                                               | 6.7                                                                               | 6.5                                                                               |
| Vehicle Extension (s)             | 6.0                                                                               |                                                                                   | 3.0                                                                               | 6.0                                                                               | 3.0                                                                               | 3.0                                                                               |
| Lane Grp Cap (vph)                | 2084                                                                              |                                                                                   | 620                                                                               | 2654                                                                              | 247                                                                               | 349                                                                               |
| v/s Ratio Prot                    | 0.16                                                                              |                                                                                   | c0.03                                                                             | 0.11                                                                              | c0.10                                                                             | 0.01                                                                              |
| v/s Ratio Perm                    |                                                                                   |                                                                                   | c0.21                                                                             |                                                                                   |                                                                                   | 0.02                                                                              |
| v/c Ratio                         | 0.27                                                                              |                                                                                   | 0.34                                                                              | 0.15                                                                              | 0.68                                                                              | 0.17                                                                              |
| Uniform Delay, d1                 | 10.6                                                                              |                                                                                   | 6.3                                                                               | 4.2                                                                               | 49.1                                                                              | 37.8                                                                              |
| Progression Factor                | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Incremental Delay, d2             | 0.3                                                                               |                                                                                   | 0.3                                                                               | 0.1                                                                               | 7.6                                                                               | 0.2                                                                               |
| Delay (s)                         | 10.9                                                                              |                                                                                   | 6.7                                                                               | 4.3                                                                               | 56.7                                                                              | 38.1                                                                              |
| Level of Service                  | B                                                                                 |                                                                                   | A                                                                                 | A                                                                                 | E                                                                                 | D                                                                                 |
| Approach Delay (s)                | 10.9                                                                              |                                                                                   |                                                                                   | 5.1                                                                               | 45.3                                                                              |                                                                                   |
| Approach LOS                      | B                                                                                 |                                                                                   |                                                                                   | A                                                                                 | D                                                                                 |                                                                                   |
| <b>Intersection Summary</b>       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 2000 Control Delay            |                                                                                   |                                                                                   | 18.1                                                                              |                                                                                   | HCM 2000 Level of Service                                                         | B                                                                                 |
| HCM 2000 Volume to Capacity ratio |                                                                                   |                                                                                   | 0.39                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Actuated Cycle Length (s)         |                                                                                   |                                                                                   | 120.0                                                                             |                                                                                   | Sum of lost time (s)                                                              | 19.7                                                                              |
| Intersection Capacity Utilization |                                                                                   |                                                                                   | 52.5%                                                                             |                                                                                   | ICU Level of Service                                                              | A                                                                                 |
| Analysis Period (min)             |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |
| c Critical Lane Group             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

# HCS7 Two-Way Stop-Control Report

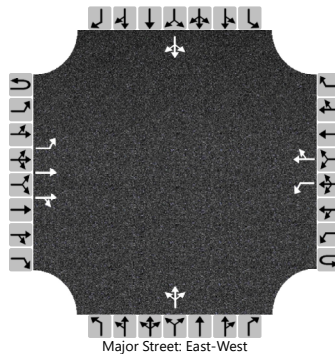
## General Information

|                          |                        |
|--------------------------|------------------------|
| Analyst                  | A. Simmons             |
| Agency/Co.               | Keck & Wood            |
| Date Performed           | 8/31/2021              |
| Analysis Year            | 2024                   |
| Time Analyzed            | PM Peak                |
| Intersection Orientation | East-West              |
| Project Description      | Future Background 2024 |

## Site Information

|                            |                      |
|----------------------------|----------------------|
| Intersection               | Shallowford @ Albert |
| Jurisdiction               | City of Gainesville  |
| East/West Street           | Shallowford Rd       |
| North/South Street         | Albert St            |
| Peak Hour Factor           | 0.95                 |
| Analysis Time Period (hrs) | 0.25                 |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |    | Westbound |   |     |    | Northbound |   |     |   | Southbound |    |     |    |
|----------------------------|-----------|---|-----|----|-----------|---|-----|----|------------|---|-----|---|------------|----|-----|----|
| Movement                   | U         | L | T   | R  | U         | L | T   | R  | U          | L | T   | R | U          | L  | T   | R  |
| Priority                   | 1U        | 1 | 2   | 3  | 4U        | 4 | 5   | 6  |            | 7 | 8   | 9 |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 1 | 2   | 0  | 0         | 1 | 1   | 0  |            | 0 | 1   | 0 |            | 0  | 1   | 0  |
| Configuration              |           | L | T   | TR |           | L |     | TR |            |   | LTR |   |            |    | LTR |    |
| Volume (veh/h)             |           | 1 | 679 | 3  | 0         | 4 | 606 | 0  |            | 0 | 0   | 0 |            | 1  | 0   | 9  |
| Percent Heavy Vehicles (%) |           | 2 |     |    | 2         | 2 |     |    |            | 2 | 2   | 2 |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |   |     |    |           |   |     |    |            |   |     |   |            |    |     |    |
| Percent Grade (%)          |           |   |     |    |           |   |     |    | 0          |   |     |   | 0          |    |     |    |
| Right Turn Channelized     |           |   |     |    |           |   |     |    |            |   |     |   |            |    |     |    |
| Median Type   Storage      | Undivided |   |     |    |           |   |     |    |            |   |     |   |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.5  | 6.5  | 6.9  |  | 7.5  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.14 |  |  |  | 4.14 |  |  |  | 7.54 | 6.54 | 6.94 |  | 7.54 | 6.54 | 6.24 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |  |  |     |      |  |  |  |  |   |  |      |  |      |  |
|-----------------------------------------|-----|------|--|--|-----|------|--|--|--|--|---|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 1    |  |  |     | 4    |  |  |  |  | 0 |  |      |  | 11   |  |
| Capacity, c (veh/h)                     |     | 942  |  |  |     | 879  |  |  |  |  |   |  |      |  | 415  |  |
| v/c Ratio                               |     | 0.00 |  |  |     | 0.00 |  |  |  |  |   |  |      |  | 0.03 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.0  |  |  |     | 0.0  |  |  |  |  |   |  |      |  | 0.1  |  |
| Control Delay (s/veh)                   |     | 8.8  |  |  |     | 9.1  |  |  |  |  |   |  |      |  | 13.9 |  |
| Level of Service (LOS)                  |     | A    |  |  |     | A    |  |  |  |  |   |  |      |  | B    |  |
| Approach Delay (s/veh)                  | 0.0 |      |  |  | 0.1 |      |  |  |  |  |   |  | 13.9 |  |      |  |
| Approach LOS                            |     |      |  |  |     |      |  |  |  |  |   |  | B    |  |      |  |

# HCS7 Two-Way Stop-Control Report

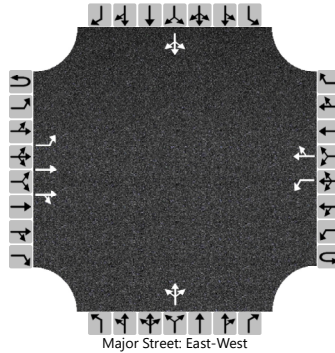
## General Information

|                          |                        |
|--------------------------|------------------------|
| Analyst                  | A. Simmons             |
| Agency/Co.               | Keck & Wood            |
| Date Performed           | 8/31/2021              |
| Analysis Year            | 2024                   |
| Time Analyzed            | PM Peak                |
| Intersection Orientation | East-West              |
| Project Description      | Future Background 2024 |

## Site Information

|                            |                           |
|----------------------------|---------------------------|
| Intersection               | Shallowford @ Regions Dwy |
| Jurisdiction               | City of Gainesville       |
| East/West Street           | Shallowford Rd            |
| North/South Street         | Regions Dwy               |
| Peak Hour Factor           | 0.85                      |
| Analysis Time Period (hrs) | 0.25                      |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |     |    | Westbound |    |     |    | Northbound |   |     |   | Southbound |    |     |    |
|----------------------------|-----------|----|-----|----|-----------|----|-----|----|------------|---|-----|---|------------|----|-----|----|
| Movement                   | U         | L  | T   | R  | U         | L  | T   | R  | U          | L | T   | R | U          | L  | T   | R  |
| Priority                   | 1U        | 1  | 2   | 3  | 4U        | 4  | 5   | 6  |            | 7 | 8   | 9 |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 1  | 2   | 0  | 0         | 1  | 1   | 0  |            | 0 | 1   | 0 |            | 0  | 1   | 0  |
| Configuration              |           | L  | T   | TR |           | L  |     | TR |            |   | LTR |   |            |    | LTR |    |
| Volume (veh/h)             |           | 14 | 653 | 6  | 0         | 10 | 581 | 24 |            | 2 | 0   | 2 |            | 13 | 0   | 26 |
| Percent Heavy Vehicles (%) |           | 2  |     |    | 2         | 2  |     |    |            | 2 | 2   | 2 |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |    |     |    |           |    |     |    |            |   |     |   |            |    |     |    |
| Percent Grade (%)          |           |    |     |    |           |    |     |    | 0          |   |     |   | 0          |    |     |    |
| Right Turn Channelized     |           |    |     |    |           |    |     |    |            |   |     |   |            |    |     |    |
| Median Type   Storage      | Undivided |    |     |    |           |    |     |    |            |   |     |   |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.5  | 6.5  | 6.9  |  | 7.5  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.14 |  |  |  | 4.14 |  |  |  | 7.54 | 6.54 | 6.94 |  | 7.54 | 6.54 | 6.24 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |  |  |     |      |  |  |      |  |      |  |      |  |  |      |
|-----------------------------------------|-----|------|--|--|-----|------|--|--|------|--|------|--|------|--|--|------|
| Flow Rate, v (veh/h)                    |     | 16   |  |  |     | 12   |  |  |      |  | 5    |  |      |  |  | 46   |
| Capacity, c (veh/h)                     |     | 884  |  |  |     | 836  |  |  |      |  | 128  |  |      |  |  | 269  |
| v/c Ratio                               |     | 0.02 |  |  |     | 0.01 |  |  |      |  | 0.04 |  |      |  |  | 0.17 |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.1  |  |  |     | 0.0  |  |  |      |  | 0.1  |  |      |  |  | 0.6  |
| Control Delay (s/veh)                   |     | 9.2  |  |  |     | 9.4  |  |  |      |  | 34.3 |  |      |  |  | 21.1 |
| Level of Service (LOS)                  |     | A    |  |  |     | A    |  |  |      |  | D    |  |      |  |  | C    |
| Approach Delay (s/veh)                  | 0.2 |      |  |  | 0.2 |      |  |  | 34.3 |  |      |  | 21.1 |  |  |      |
| Approach LOS                            |     |      |  |  |     |      |  |  | D    |  |      |  | C    |  |  |      |

# HCS7 Two-Way Stop-Control Report

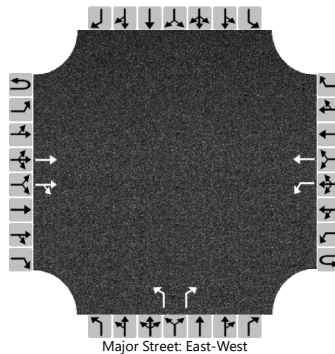
## General Information

|                          |                        |
|--------------------------|------------------------|
| Analyst                  | A. Simmons             |
| Agency/Co.               | Keck & Wood            |
| Date Performed           | 8/31/2021              |
| Analysis Year            | 2024                   |
| Time Analyzed            | PM Peak                |
| Intersection Orientation | East-West              |
| Project Description      | Future Background 2024 |

## Site Information

|                            |                          |
|----------------------------|--------------------------|
| Intersection               | Shallowford @ Strip Mall |
| Jurisdiction               | City of Gainesville      |
| East/West Street           | Shallowford Rd           |
| North/South Street         | Strip Mall (Dwy #3)      |
| Peak Hour Factor           | 0.85                     |
| Analysis Time Period (hrs) | 0.25                     |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |    | Westbound |   |     |   | Northbound |   |   |   | Southbound |    |    |    |
|----------------------------|-----------|---|-----|----|-----------|---|-----|---|------------|---|---|---|------------|----|----|----|
| Movement                   | U         | L | T   | R  | U         | L | T   | R | U          | L | T | R | U          | L  | T  | R  |
| Priority                   | 1U        | 1 | 2   | 3  | 4U        | 4 | 5   | 6 |            | 7 | 8 | 9 |            | 10 | 11 | 12 |
| Number of Lanes            | 0         | 0 | 2   | 0  | 0         | 1 | 1   | 0 |            | 1 | 0 | 1 |            | 0  | 0  | 0  |
| Configuration              |           |   | T   | TR |           | L | T   |   |            | L |   | R |            |    |    |    |
| Volume (veh/h)             |           |   | 680 | 2  | 0         | 3 | 611 |   |            | 1 |   | 5 |            |    |    |    |
| Percent Heavy Vehicles (%) |           |   |     |    | 2         | 2 |     |   |            | 2 |   | 2 |            |    |    |    |
| Proportion Time Blocked    |           |   |     |    |           |   |     |   |            |   |   |   |            |    |    |    |
| Percent Grade (%)          |           |   |     |    |           |   |     |   | 0          |   |   |   |            |    |    |    |
| Right Turn Channelized     |           |   |     |    |           |   |     |   | No         |   |   |   |            |    |    |    |
| Median Type   Storage      | Undivided |   |     |    |           |   |     |   |            |   |   |   |            |    |    |    |

## Critical and Follow-up Headways

|                              |  |  |  |  |  |      |  |  |  |      |  |      |  |  |  |  |
|------------------------------|--|--|--|--|--|------|--|--|--|------|--|------|--|--|--|--|
| Base Critical Headway (sec)  |  |  |  |  |  | 4.1  |  |  |  | 7.5  |  | 6.9  |  |  |  |  |
| Critical Headway (sec)       |  |  |  |  |  | 4.14 |  |  |  | 6.84 |  | 6.94 |  |  |  |  |
| Base Follow-Up Headway (sec) |  |  |  |  |  | 2.2  |  |  |  | 3.5  |  | 3.3  |  |  |  |  |
| Follow-Up Headway (sec)      |  |  |  |  |  | 2.22 |  |  |  | 3.52 |  | 3.32 |  |  |  |  |

## Delay, Queue Length, and Level of Service

|                                         |  |  |  |  |     |      |  |  |      |      |  |      |  |  |  |  |
|-----------------------------------------|--|--|--|--|-----|------|--|--|------|------|--|------|--|--|--|--|
| Flow Rate, v (veh/h)                    |  |  |  |  |     | 4    |  |  |      | 1    |  | 6    |  |  |  |  |
| Capacity, c (veh/h)                     |  |  |  |  |     | 817  |  |  |      | 108  |  | 599  |  |  |  |  |
| v/c Ratio                               |  |  |  |  |     | 0.00 |  |  |      | 0.01 |  | 0.01 |  |  |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |  |  |  |  |     | 0.0  |  |  |      | 0.0  |  | 0.0  |  |  |  |  |
| Control Delay (s/veh)                   |  |  |  |  |     | 9.4  |  |  |      | 38.8 |  | 11.1 |  |  |  |  |
| Level of Service (LOS)                  |  |  |  |  |     | A    |  |  |      | E    |  | B    |  |  |  |  |
| Approach Delay (s/veh)                  |  |  |  |  | 0.0 |      |  |  | 15.7 |      |  |      |  |  |  |  |
| Approach LOS                            |  |  |  |  |     |      |  |  | C    |      |  |      |  |  |  |  |

# Future Background 2024 - PM.syn

## 6: Pearl Nix Pkwy & Shallowford Rd/West End Ave

|                         |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                                | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Group Flow (vph)   | 143                                                                               | 128                                                                               | 448                                                                               | 175                                                                               | 76                                                                                | 339                                                                               | 348                                                                                | 4                                                                                   | 36                                                                                  | 278                                                                                 | 133                                                                                 |
| v/c Ratio               | 0.43                                                                              | 0.24                                                                              | 0.38                                                                              | 0.69                                                                              | 0.19                                                                              | 0.70                                                                              | 0.20                                                                               | 0.00                                                                                | 0.27                                                                                | 0.49                                                                                | 0.30                                                                                |
| Control Delay           | 32.5                                                                              | 30.3                                                                              | 4.3                                                                               | 57.4                                                                              | 1.0                                                                               | 24.6                                                                              | 15.4                                                                               | 0.0                                                                                 | 50.9                                                                                | 40.6                                                                                | 1.8                                                                                 |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Delay             | 32.5                                                                              | 30.3                                                                              | 4.3                                                                               | 57.4                                                                              | 1.0                                                                               | 24.6                                                                              | 15.4                                                                               | 0.0                                                                                 | 50.9                                                                                | 40.6                                                                                | 1.8                                                                                 |
| Queue Length 50th (ft)  | 63                                                                                | 58                                                                                | 48                                                                                | 101                                                                               | 0                                                                                 | 103                                                                               | 68                                                                                 | 0                                                                                   | 21                                                                                  | 80                                                                                  | 0                                                                                   |
| Queue Length 95th (ft)  | 144                                                                               | 132                                                                               | 111                                                                               | #250                                                                              | 0                                                                                 | 152                                                                               | 98                                                                                 | 0                                                                                   | 60                                                                                  | 138                                                                                 | 0                                                                                   |
| Internal Link Dist (ft) | 1660                                                                              |                                                                                   |                                                                                   | 848                                                                               |                                                                                   |                                                                                   | 1028                                                                               |                                                                                     |                                                                                     | 2617                                                                                |                                                                                     |
| Turn Bay Length (ft)    | 80                                                                                |                                                                                   |                                                                                   |                                                                                   | 90                                                                                |                                                                                   | 430                                                                                |                                                                                     | 225                                                                                 |                                                                                     | 145                                                                                 |
| Base Capacity (vph)     | 333                                                                               | 551                                                                               | 1386                                                                              | 254                                                                               | 401                                                                               | 1073                                                                              | 3106                                                                               | 1404                                                                                | 163                                                                                 | 1073                                                                                | 632                                                                                 |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Reduced v/c Ratio       | 0.43                                                                              | 0.23                                                                              | 0.32                                                                              | 0.69                                                                              | 0.19                                                                              | 0.32                                                                              | 0.11                                                                               | 0.00                                                                                | 0.22                                                                                | 0.26                                                                                | 0.21                                                                                |

### Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



# Future Background 2024 - PM.syn

## 6: Pearl Nix Pkwy & Shallowford Rd/West End Ave

|                                   |  |  |  |  |  |  |   |  |  |  |  |  |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                          | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations               |  |  |  |                                                                                   |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)              | 137                                                                               | 123                                                                               | 430                                                                               | 3                                                                                 | 165                                                                               | 73                                                                                | 325                                                                                 | 334                                                                                 | 4                                                                                   | 35                                                                                  | 267                                                                                 | 128                                                                                 |
| Future Volume (vph)               | 137                                                                               | 123                                                                               | 430                                                                               | 3                                                                                 | 165                                                                               | 73                                                                                | 325                                                                                 | 334                                                                                 | 4                                                                                   | 35                                                                                  | 267                                                                                 | 128                                                                                 |
| Ideal Flow (vphpl)                | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Total Lost time (s)               | 5.2                                                                               | 7.0                                                                               | 6.3                                                                               |                                                                                   | 7.0                                                                               | 7.0                                                                               | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 |
| Lane Util. Factor                 | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                | 0.95                                                                                | 1.00                                                                                |
| Frt                               | 1.00                                                                              | 1.00                                                                              | 0.85                                                                              |                                                                                   | 1.00                                                                              | 0.85                                                                              | 1.00                                                                                | 1.00                                                                                | 0.85                                                                                | 1.00                                                                                | 1.00                                                                                | 0.85                                                                                |
| Flt Protected                     | 0.95                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                |
| Satd. Flow (prot)                 | 1770                                                                              | 1863                                                                              | 1583                                                                              |                                                                                   | 1861                                                                              | 1583                                                                              | 1770                                                                                | 3539                                                                                | 1583                                                                                | 1770                                                                                | 3539                                                                                | 1583                                                                                |
| Flt Permitted                     | 0.39                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                |
| Satd. Flow (perm)                 | 724                                                                               | 1863                                                                              | 1583                                                                              |                                                                                   | 1850                                                                              | 1583                                                                              | 1770                                                                                | 3539                                                                                | 1583                                                                                | 1770                                                                                | 3539                                                                                | 1583                                                                                |
| Peak-hour factor, PHF             | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                                | 0.96                                                                                | 0.96                                                                                | 0.96                                                                                | 0.96                                                                                | 0.96                                                                                |
| Adj. Flow (vph)                   | 143                                                                               | 128                                                                               | 448                                                                               | 3                                                                                 | 172                                                                               | 76                                                                                | 339                                                                                 | 348                                                                                 | 4                                                                                   | 36                                                                                  | 278                                                                                 | 133                                                                                 |
| RTOR Reduction (vph)              | 0                                                                                 | 0                                                                                 | 77                                                                                | 0                                                                                 | 0                                                                                 | 66                                                                                | 0                                                                                   | 0                                                                                   | 2                                                                                   | 0                                                                                   | 0                                                                                   | 112                                                                                 |
| Lane Group Flow (vph)             | 143                                                                               | 128                                                                               | 371                                                                               | 0                                                                                 | 175                                                                               | 10                                                                                | 339                                                                                 | 348                                                                                 | 2                                                                                   | 36                                                                                  | 278                                                                                 | 21                                                                                  |
| Turn Type                         | pm+pt                                                                             | NA                                                                                | pm+ov                                                                             | Perm                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                                | NA                                                                                  | Perm                                                                                | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases                  | 7                                                                                 | 4                                                                                 | 1 10                                                                              |                                                                                   | 8                                                                                 |                                                                                   | 1 10                                                                                | 6                                                                                   |                                                                                     | 5                                                                                   | 2                                                                                   |                                                                                     |
| Permitted Phases                  | 4                                                                                 |                                                                                   | 4                                                                                 | 8                                                                                 |                                                                                   | 8                                                                                 |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 2                                                                                   |
| Actuated Green, G (s)             | 28.0                                                                              | 28.0                                                                              | 57.2                                                                              |                                                                                   | 13.3                                                                              | 13.3                                                                              | 29.2                                                                                | 46.4                                                                                | 46.4                                                                                | 4.6                                                                                 | 15.5                                                                                | 15.5                                                                                |
| Effective Green, g (s)            | 28.0                                                                              | 28.0                                                                              | 57.2                                                                              |                                                                                   | 13.3                                                                              | 13.3                                                                              | 29.2                                                                                | 46.4                                                                                | 46.4                                                                                | 4.6                                                                                 | 15.5                                                                                | 15.5                                                                                |
| Actuated g/C Ratio                | 0.28                                                                              | 0.28                                                                              | 0.58                                                                              |                                                                                   | 0.13                                                                              | 0.13                                                                              | 0.30                                                                                | 0.47                                                                                | 0.47                                                                                | 0.05                                                                                | 0.16                                                                                | 0.16                                                                                |
| Clearance Time (s)                | 5.2                                                                               | 7.0                                                                               |                                                                                   |                                                                                   | 7.0                                                                               | 7.0                                                                               |                                                                                     | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 |
| Vehicle Extension (s)             | 2.1                                                                               | 2.5                                                                               |                                                                                   |                                                                                   | 3.1                                                                               | 3.1                                                                               |                                                                                     | 6.0                                                                                 | 6.0                                                                                 | 3.1                                                                                 | 5.0                                                                                 | 5.0                                                                                 |
| Lane Grp Cap (vph)                | 306                                                                               | 529                                                                               | 1019                                                                              |                                                                                   | 249                                                                               | 213                                                                               | 524                                                                                 | 1665                                                                                | 744                                                                                 | 82                                                                                  | 556                                                                                 | 248                                                                                 |
| v/s Ratio Prot                    | 0.04                                                                              | 0.07                                                                              | c0.11                                                                             |                                                                                   |                                                                                   |                                                                                   | c0.19                                                                               | 0.10                                                                                |                                                                                     | 0.02                                                                                | c0.08                                                                               |                                                                                     |
| v/s Ratio Perm                    | 0.09                                                                              |                                                                                   | 0.13                                                                              |                                                                                   | c0.09                                                                             | 0.01                                                                              |                                                                                     |                                                                                     | 0.00                                                                                |                                                                                     |                                                                                     | 0.01                                                                                |
| v/c Ratio                         | 0.47                                                                              | 0.24                                                                              | 0.36                                                                              |                                                                                   | 0.70                                                                              | 0.05                                                                              | 0.65                                                                                | 0.21                                                                                | 0.00                                                                                | 0.44                                                                                | 0.50                                                                                | 0.08                                                                                |
| Uniform Delay, d1                 | 27.8                                                                              | 27.1                                                                              | 11.0                                                                              |                                                                                   | 40.8                                                                              | 37.1                                                                              | 30.2                                                                                | 15.3                                                                                | 13.8                                                                                | 45.7                                                                                | 38.0                                                                                | 35.5                                                                                |
| Progression Factor                | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Incremental Delay, d2             | 0.5                                                                               | 0.2                                                                               | 0.1                                                                               |                                                                                   | 8.7                                                                               | 0.1                                                                               | 2.1                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 3.9                                                                                 | 1.5                                                                                 | 0.3                                                                                 |
| Delay (s)                         | 28.3                                                                              | 27.3                                                                              | 11.1                                                                              |                                                                                   | 49.5                                                                              | 37.2                                                                              | 32.3                                                                                | 15.5                                                                                | 13.8                                                                                | 49.6                                                                                | 39.5                                                                                | 35.8                                                                                |
| Level of Service                  | C                                                                                 | C                                                                                 | B                                                                                 |                                                                                   | D                                                                                 | D                                                                                 | C                                                                                   | B                                                                                   | B                                                                                   | D                                                                                   | D                                                                                   | D                                                                                   |
| Approach Delay (s)                |                                                                                   | 17.4                                                                              |                                                                                   |                                                                                   | 45.8                                                                              |                                                                                   |                                                                                     | 23.7                                                                                |                                                                                     |                                                                                     | 39.2                                                                                |                                                                                     |
| Approach LOS                      |                                                                                   | B                                                                                 |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                     | C                                                                                   |                                                                                     |                                                                                     | D                                                                                   |                                                                                     |
| <b>Intersection Summary</b>       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 2000 Control Delay            |                                                                                   |                                                                                   | 27.5                                                                              |                                                                                   |                                                                                   |                                                                                   | HCM 2000 Level of Service                                                           |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |                                                                                     |
| HCM 2000 Volume to Capacity ratio |                                                                                   |                                                                                   | 0.61                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Actuated Cycle Length (s)         |                                                                                   |                                                                                   | 98.6                                                                              |                                                                                   |                                                                                   |                                                                                   | Sum of lost time (s)                                                                |                                                                                     |                                                                                     | 31.1                                                                                |                                                                                     |                                                                                     |
| Intersection Capacity Utilization |                                                                                   |                                                                                   | 64.1%                                                                             |                                                                                   |                                                                                   |                                                                                   | ICU Level of Service                                                                |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |                                                                                     |
| Analysis Period (min)             |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| c Critical Lane Group             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

# HCS7 Two-Way Stop-Control Report

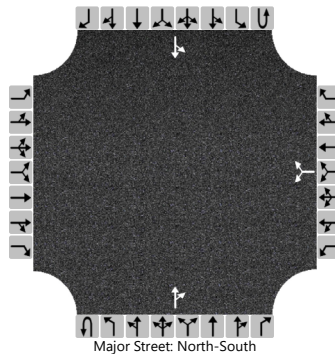
## General Information

|                          |                          |
|--------------------------|--------------------------|
| Analyst                  | A. Simmons               |
| Agency/Co.               | Keck & Wood              |
| Date Performed           | 8/31/2021                |
| Analysis Year            | 2024                     |
| Time Analyzed            | AM Peak                  |
| Intersection Orientation | North-South              |
| Project Description      | Future with Project 2024 |

## Site Information

|                            |                          |
|----------------------------|--------------------------|
| Intersection               | Skelton Rd @ Site Dwy #1 |
| Jurisdiction               | City of Gainesville      |
| East/West Street           | Site Dwy #1              |
| North/South Street         | Skelton Rd               |
| Peak Hour Factor           | 0.87                     |
| Analysis Time Period (hrs) | 0.25                     |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |    |    | Westbound |   |    |    | Northbound |   |     |    | Southbound |    |     |   |
|----------------------------|-----------|----|----|----|-----------|---|----|----|------------|---|-----|----|------------|----|-----|---|
| Movement                   | U         | L  | T  | R  | U         | L | T  | R  | U          | L | T   | R  | U          | L  | T   | R |
| Priority                   |           | 10 | 11 | 12 |           | 7 | 8  | 9  | 1U         | 1 | 2   | 3  | 4U         | 4  | 5   | 6 |
| Number of Lanes            |           | 0  | 0  | 0  |           | 0 | 1  | 0  | 0          | 0 | 1   | 0  | 0          | 0  | 1   | 0 |
| Configuration              |           |    |    |    |           |   | LR |    |            |   |     | TR |            | LT |     |   |
| Volume (veh/h)             |           |    |    |    |           | 8 |    | 23 |            |   | 147 | 6  |            | 17 | 156 |   |
| Percent Heavy Vehicles (%) |           |    |    |    |           | 2 |    | 2  |            |   |     |    |            | 2  |     |   |
| Proportion Time Blocked    |           |    |    |    |           |   |    |    |            |   |     |    |            |    |     |   |
| Percent Grade (%)          |           |    |    |    | 0         |   |    |    |            |   |     |    |            |    |     |   |
| Right Turn Channelized     |           |    |    |    |           |   |    |    |            |   |     |    |            |    |     |   |
| Median Type   Storage      | Undivided |    |    |    |           |   |    |    |            |   |     |    |            |    |     |   |

## Critical and Follow-up Headways

|                              |  |  |  |  |  |      |  |      |  |  |  |  |  |      |  |  |
|------------------------------|--|--|--|--|--|------|--|------|--|--|--|--|--|------|--|--|
| Base Critical Headway (sec)  |  |  |  |  |  | 7.1  |  | 6.2  |  |  |  |  |  | 4.1  |  |  |
| Critical Headway (sec)       |  |  |  |  |  | 6.42 |  | 6.22 |  |  |  |  |  | 4.12 |  |  |
| Base Follow-Up Headway (sec) |  |  |  |  |  | 3.5  |  | 3.3  |  |  |  |  |  | 2.2  |  |  |
| Follow-Up Headway (sec)      |  |  |  |  |  | 3.52 |  | 3.32 |  |  |  |  |  | 2.22 |  |  |

## Delay, Queue Length, and Level of Service

|                                         |  |  |  |  |     |      |  |  |  |  |  |  |     |      |  |  |
|-----------------------------------------|--|--|--|--|-----|------|--|--|--|--|--|--|-----|------|--|--|
| Flow Rate, v (veh/h)                    |  |  |  |  |     | 36   |  |  |  |  |  |  |     | 20   |  |  |
| Capacity, c (veh/h)                     |  |  |  |  |     | 782  |  |  |  |  |  |  |     | 1400 |  |  |
| v/c Ratio                               |  |  |  |  |     | 0.05 |  |  |  |  |  |  |     | 0.01 |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |  |  |  |  |     | 0.1  |  |  |  |  |  |  |     | 0.0  |  |  |
| Control Delay (s/veh)                   |  |  |  |  |     | 9.8  |  |  |  |  |  |  |     | 7.6  |  |  |
| Level of Service (LOS)                  |  |  |  |  |     | A    |  |  |  |  |  |  |     | A    |  |  |
| Approach Delay (s/veh)                  |  |  |  |  | 9.8 |      |  |  |  |  |  |  | 0.9 |      |  |  |
| Approach LOS                            |  |  |  |  | A   |      |  |  |  |  |  |  |     |      |  |  |

# Future with Project 2024 - AM.syn

## 2: Skelton Rd & Shallowford Rd

|                         |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | SET                                                                               | NWL                                                                               | NWT                                                                               | NEL                                                                               | NER                                                                               |
| Lane Group Flow (vph)   | 394                                                                               | 116                                                                               | 148                                                                               | 80                                                                                | 149                                                                               |
| v/c Ratio               | 0.17                                                                              | 0.15                                                                              | 0.05                                                                              | 0.48                                                                              | 0.35                                                                              |
| Control Delay           | 5.3                                                                               | 3.6                                                                               | 2.8                                                                               | 56.2                                                                              | 7.6                                                                               |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |
| Total Delay             | 5.3                                                                               | 3.6                                                                               | 2.8                                                                               | 56.2                                                                              | 7.6                                                                               |
| Queue Length 50th (ft)  | 34                                                                                | 15                                                                                | 10                                                                                | 55                                                                                | 0                                                                                 |
| Queue Length 95th (ft)  | 55                                                                                | 30                                                                                | 18                                                                                | 92                                                                                | 38                                                                                |
| Internal Link Dist (ft) | 866                                                                               |                                                                                   | 1660                                                                              | 296                                                                               |                                                                                   |
| Turn Bay Length (ft)    |                                                                                   | 80                                                                                |                                                                                   |                                                                                   | 250                                                                               |
| Base Capacity (vph)     | 2332                                                                              | 917                                                                               | 2907                                                                              | 455                                                                               | 578                                                                               |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Reduced v/c Ratio       | 0.17                                                                              | 0.13                                                                              | 0.05                                                                              | 0.18                                                                              | 0.26                                                                              |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

Future with Project 2024 - AM.syn  
2: Skelton Rd & Shallowford Rd

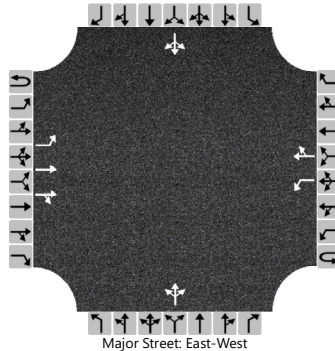
|                                   |  |  |  |  |  |  |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Movement                          | SET                                                                               | SER                                                                               | NWL                                                                               | NWT                                                                               | NEL                                                                               | NER                                                                               |
| Lane Configurations               | ↑↑                                                                                |                                                                                   | ↰                                                                                 | ↑↑                                                                                | ↰                                                                                 | ↰                                                                                 |
| Traffic Volume (vph)              | 209                                                                               | 118                                                                               | 96                                                                                | 123                                                                               | 66                                                                                | 124                                                                               |
| Future Volume (vph)               | 209                                                                               | 118                                                                               | 96                                                                                | 123                                                                               | 66                                                                                | 124                                                                               |
| Ideal Flow (vphpl)                | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              |
| Total Lost time (s)               | 6.5                                                                               |                                                                                   | 6.5                                                                               | 6.5                                                                               | 6.7                                                                               | 6.5                                                                               |
| Lane Util. Factor                 | 0.95                                                                              |                                                                                   | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                              |
| Frt                               | 0.95                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.85                                                                              |
| Flt Protected                     | 1.00                                                                              |                                                                                   | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              |
| Satd. Flow (prot)                 | 3348                                                                              |                                                                                   | 1770                                                                              | 3539                                                                              | 1770                                                                              | 1583                                                                              |
| Flt Permitted                     | 1.00                                                                              |                                                                                   | 0.52                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              |
| Satd. Flow (perm)                 | 3348                                                                              |                                                                                   | 968                                                                               | 3539                                                                              | 1770                                                                              | 1583                                                                              |
| Peak-hour factor, PHF             | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              |
| Adj. Flow (vph)                   | 252                                                                               | 142                                                                               | 116                                                                               | 148                                                                               | 80                                                                                | 149                                                                               |
| RTOR Reduction (vph)              | 39                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 127                                                                               |
| Lane Group Flow (vph)             | 355                                                                               | 0                                                                                 | 116                                                                               | 148                                                                               | 80                                                                                | 22                                                                                |
| Turn Type                         | NA                                                                                |                                                                                   | D.P+P                                                                             | NA                                                                                | Prot                                                                              | pm+ov                                                                             |
| Protected Phases                  | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 | 4                                                                                 | 1                                                                                 |
| Permitted Phases                  |                                                                                   |                                                                                   | 2                                                                                 |                                                                                   |                                                                                   | 4                                                                                 |
| Actuated Green, G (s)             | 74.0                                                                              |                                                                                   | 81.2                                                                              | 87.7                                                                              | 9.1                                                                               | 16.3                                                                              |
| Effective Green, g (s)            | 74.0                                                                              |                                                                                   | 81.2                                                                              | 87.7                                                                              | 9.1                                                                               | 16.3                                                                              |
| Actuated g/C Ratio                | 0.67                                                                              |                                                                                   | 0.74                                                                              | 0.80                                                                              | 0.08                                                                              | 0.15                                                                              |
| Clearance Time (s)                | 6.5                                                                               |                                                                                   | 6.5                                                                               | 6.5                                                                               | 6.7                                                                               | 6.5                                                                               |
| Vehicle Extension (s)             | 6.0                                                                               |                                                                                   | 3.0                                                                               | 6.0                                                                               | 3.0                                                                               | 3.0                                                                               |
| Lane Grp Cap (vph)                | 2252                                                                              |                                                                                   | 767                                                                               | 2821                                                                              | 146                                                                               | 234                                                                               |
| v/s Ratio Prot                    | c0.11                                                                             |                                                                                   | c0.01                                                                             | 0.04                                                                              | c0.05                                                                             | 0.01                                                                              |
| v/s Ratio Perm                    |                                                                                   |                                                                                   | 0.10                                                                              |                                                                                   |                                                                                   | 0.01                                                                              |
| v/c Ratio                         | 0.16                                                                              |                                                                                   | 0.15                                                                              | 0.05                                                                              | 0.55                                                                              | 0.09                                                                              |
| Uniform Delay, d1                 | 6.6                                                                               |                                                                                   | 4.0                                                                               | 2.4                                                                               | 48.5                                                                              | 40.5                                                                              |
| Progression Factor                | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Incremental Delay, d2             | 0.1                                                                               |                                                                                   | 0.1                                                                               | 0.0                                                                               | 4.2                                                                               | 0.2                                                                               |
| Delay (s)                         | 6.7                                                                               |                                                                                   | 4.1                                                                               | 2.4                                                                               | 52.6                                                                              | 40.6                                                                              |
| Level of Service                  | A                                                                                 |                                                                                   | A                                                                                 | A                                                                                 | D                                                                                 | D                                                                                 |
| Approach Delay (s)                | 6.7                                                                               |                                                                                   |                                                                                   | 3.2                                                                               | 44.8                                                                              |                                                                                   |
| Approach LOS                      | A                                                                                 |                                                                                   |                                                                                   | A                                                                                 | D                                                                                 |                                                                                   |
| <b>Intersection Summary</b>       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 2000 Control Delay            |                                                                                   |                                                                                   | 15.5                                                                              |                                                                                   | HCM 2000 Level of Service                                                         | B                                                                                 |
| HCM 2000 Volume to Capacity ratio |                                                                                   |                                                                                   | 0.20                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Actuated Cycle Length (s)         |                                                                                   |                                                                                   | 110.0                                                                             |                                                                                   | Sum of lost time (s)                                                              | 19.7                                                                              |
| Intersection Capacity Utilization |                                                                                   |                                                                                   | 35.9%                                                                             |                                                                                   | ICU Level of Service                                                              | A                                                                                 |
| Analysis Period (min)             |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |
| c Critical Lane Group             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

# HCS7 Two-Way Stop-Control Report

## General Information

|                          |                          |                            |                           |
|--------------------------|--------------------------|----------------------------|---------------------------|
| Analyst                  | A. Simmons               | Intersection               | Shallowford @ Site Dwy #2 |
| Agency/Co.               | Keck & Wood              | Jurisdiction               | City of Gainesville       |
| Date Performed           | 8/31/2021                | East/West Street           | Shallowford Rd            |
| Analysis Year            | 2024                     | North/South Street         | Site Dwy #2               |
| Time Analyzed            | AM Peak                  | Peak Hour Factor           | 0.85                      |
| Intersection Orientation | East-West                | Analysis Time Period (hrs) | 0.25                      |
| Project Description      | Future with Project 2024 |                            |                           |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |    | Westbound |    |     |    | Northbound |    |     |    | Southbound |    |     |    |
|----------------------------|-----------|---|-----|----|-----------|----|-----|----|------------|----|-----|----|------------|----|-----|----|
| Movement                   | U         | L | T   | R  | U         | L  | T   | R  | U          | L  | T   | R  | U          | L  | T   | R  |
| Priority                   | 1U        | 1 | 2   | 3  | 4U        | 4  | 5   | 6  |            | 7  | 8   | 9  |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 1 | 2   | 0  | 0         | 1  | 1   | 0  |            | 0  | 1   | 0  |            | 0  | 1   | 0  |
| Configuration              |           | L | T   | TR |           | L  |     | TR |            |    | LTR |    |            |    | LTR |    |
| Volume (veh/h)             |           | 6 | 299 | 29 | 0         | 17 | 207 | 1  |            | 26 | 0   | 46 |            | 0  | 0   | 1  |
| Percent Heavy Vehicles (%) |           | 2 |     |    | 2         | 2  |     |    |            | 2  | 2   | 2  |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |   |     |    |           |    |     |    |            |    |     |    |            |    |     |    |
| Percent Grade (%)          |           |   |     |    |           |    |     |    | 0          |    |     |    | 0          |    |     |    |
| Right Turn Channelized     |           |   |     |    |           |    |     |    |            |    |     |    |            |    |     |    |
| Median Type   Storage      | Undivided |   |     |    |           |    |     |    |            |    |     |    |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.5  | 6.5  | 6.9  |  | 7.5  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.14 |  |  |  | 4.14 |  |  |  | 7.54 | 6.54 | 6.94 |  | 7.54 | 6.54 | 6.24 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |  |  |     |      |  |  |      |  |      |  |     |  |      |  |
|-----------------------------------------|-----|------|--|--|-----|------|--|--|------|--|------|--|-----|--|------|--|
| Flow Rate, v (veh/h)                    |     | 7    |  |  |     | 20   |  |  |      |  | 85   |  |     |  | 1    |  |
| Capacity, c (veh/h)                     |     | 1319 |  |  |     | 1169 |  |  |      |  | 540  |  |     |  | 793  |  |
| v/c Ratio                               |     | 0.01 |  |  |     | 0.02 |  |  |      |  | 0.16 |  |     |  | 0.00 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.0  |  |  |     | 0.1  |  |  |      |  | 0.6  |  |     |  | 0.0  |  |
| Control Delay (s/veh)                   |     | 7.7  |  |  |     | 8.1  |  |  |      |  | 12.9 |  |     |  | 9.5  |  |
| Level of Service (LOS)                  |     | A    |  |  |     | A    |  |  |      |  | B    |  |     |  | A    |  |
| Approach Delay (s/veh)                  | 0.1 |      |  |  | 0.6 |      |  |  | 12.9 |  |      |  | 9.5 |  |      |  |
| Approach LOS                            |     |      |  |  |     |      |  |  | B    |  |      |  | A   |  |      |  |

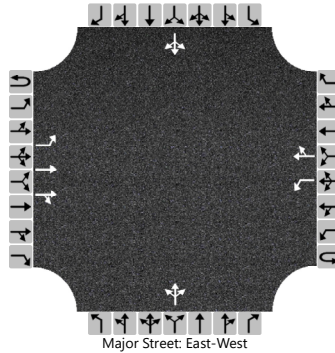


# HCS7 Two-Way Stop-Control Report

## General Information

|                          |                          |                            |                           |
|--------------------------|--------------------------|----------------------------|---------------------------|
| Analyst                  | A. Simmons               | Intersection               | Shallowford @ Site Dwy #3 |
| Agency/Co.               | Keck & Wood              | Jurisdiction               | City of Gainesville       |
| Date Performed           | 8/31/2021                | East/West Street           | Shallowford Rd            |
| Analysis Year            | 2024                     | North/South Street         | Site Dwy #3/Regions Dwy   |
| Time Analyzed            | AM Peak                  | Peak Hour Factor           | 0.85                      |
| Intersection Orientation | East-West                | Analysis Time Period (hrs) | 0.25                      |
| Project Description      | Future with Project 2024 |                            |                           |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |    | Westbound |    |     |    | Northbound |   |     |    | Southbound |    |     |    |
|----------------------------|-----------|---|-----|----|-----------|----|-----|----|------------|---|-----|----|------------|----|-----|----|
| Movement                   | U         | L | T   | R  | U         | L  | T   | R  | U          | L | T   | R  | U          | L  | T   | R  |
| Priority                   | 1U        | 1 | 2   | 3  | 4U        | 4  | 5   | 6  |            | 7 | 8   | 9  |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 1 | 2   | 0  | 0         | 1  | 1   | 0  |            | 0 | 1   | 0  |            | 0  | 1   | 0  |
| Configuration              |           | L | T   | TR |           | L  |     | TR |            |   | LTR |    |            |    | LTR |    |
| Volume (veh/h)             |           | 4 | 339 | 0  | 0         | 29 | 217 | 4  |            | 0 | 0   | 28 |            | 4  | 0   | 5  |
| Percent Heavy Vehicles (%) |           | 2 |     |    | 2         | 2  |     |    |            | 2 | 2   | 2  |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |   |     |    |           |    |     |    |            |   |     |    |            |    |     |    |
| Percent Grade (%)          |           |   |     |    |           |    |     |    | 0          |   |     |    | 0          |    |     |    |
| Right Turn Channelized     |           |   |     |    |           |    |     |    |            |   |     |    |            |    |     |    |
| Median Type   Storage      | Undivided |   |     |    |           |    |     |    |            |   |     |    |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.5  | 6.5  | 6.9  |  | 7.5  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.14 |  |  |  | 4.14 |  |  |  | 7.54 | 6.54 | 6.94 |  | 7.54 | 6.54 | 6.24 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |  |  |     |      |  |  |     |  |      |  |      |  |      |  |
|-----------------------------------------|-----|------|--|--|-----|------|--|--|-----|--|------|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 5    |  |  |     | 34   |  |  |     |  | 33   |  |      |  | 11   |  |
| Capacity, c (veh/h)                     |     | 1302 |  |  |     | 1156 |  |  |     |  | 808  |  |      |  | 549  |  |
| v/c Ratio                               |     | 0.00 |  |  |     | 0.03 |  |  |     |  | 0.04 |  |      |  | 0.02 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.0  |  |  |     | 0.1  |  |  |     |  | 0.1  |  |      |  | 0.1  |  |
| Control Delay (s/veh)                   |     | 7.8  |  |  |     | 8.2  |  |  |     |  | 9.6  |  |      |  | 11.7 |  |
| Level of Service (LOS)                  |     | A    |  |  |     | A    |  |  |     |  | A    |  |      |  | B    |  |
| Approach Delay (s/veh)                  | 0.1 |      |  |  | 1.0 |      |  |  | 9.6 |  |      |  | 11.7 |  |      |  |
| Approach LOS                            |     |      |  |  |     |      |  |  | A   |  |      |  | B    |  |      |  |

# HCS7 Two-Way Stop-Control Report

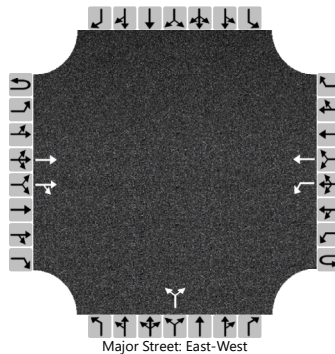
## General Information

|                          |                          |
|--------------------------|--------------------------|
| Analyst                  | A. Simmons               |
| Agency/Co.               | Keck & Wood              |
| Date Performed           | 8/31/2021                |
| Analysis Year            | 2024                     |
| Time Analyzed            | AM Peak                  |
| Intersection Orientation | East-West                |
| Project Description      | Future with Project 2024 |

## Site Information

|                            |                           |
|----------------------------|---------------------------|
| Intersection               | Shallowford @ Site Dwy #4 |
| Jurisdiction               | City of Gainesville       |
| East/West Street           | Shallowford Rd            |
| North/South Street         | Site Dwy #4               |
| Peak Hour Factor           | 0.85                      |
| Analysis Time Period (hrs) | 0.25                      |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |    | Westbound |    |     |   | Northbound |   |    |    | Southbound |    |    |    |
|----------------------------|-----------|---|-----|----|-----------|----|-----|---|------------|---|----|----|------------|----|----|----|
| Movement                   | U         | L | T   | R  | U         | L  | T   | R | U          | L | T  | R  | U          | L  | T  | R  |
| Priority                   | 1U        | 1 | 2   | 3  | 4U        | 4  | 5   | 6 |            | 7 | 8  | 9  |            | 10 | 11 | 12 |
| Number of Lanes            | 0         | 0 | 2   | 0  | 0         | 1  | 1   | 0 |            | 0 | 1  | 0  |            | 0  | 0  | 0  |
| Configuration              |           |   | T   | TR |           | L  | T   |   |            |   | LR |    |            |    |    |    |
| Volume (veh/h)             |           |   | 362 | 6  | 0         | 12 | 242 |   |            | 8 |    | 15 |            |    |    |    |
| Percent Heavy Vehicles (%) |           |   |     |    | 2         | 2  |     |   |            | 2 |    | 2  |            |    |    |    |
| Proportion Time Blocked    |           |   |     |    |           |    |     |   |            |   |    |    |            |    |    |    |
| Percent Grade (%)          |           |   |     |    |           |    |     |   | 0          |   |    |    |            |    |    |    |
| Right Turn Channelized     |           |   |     |    |           |    |     |   |            |   |    |    |            |    |    |    |
| Median Type   Storage      | Undivided |   |     |    |           |    |     |   |            |   |    |    |            |    |    |    |

## Critical and Follow-up Headways

|                              |  |  |  |  |  |      |  |  |  |  |      |  |      |  |  |  |
|------------------------------|--|--|--|--|--|------|--|--|--|--|------|--|------|--|--|--|
| Base Critical Headway (sec)  |  |  |  |  |  | 4.1  |  |  |  |  | 7.5  |  | 6.9  |  |  |  |
| Critical Headway (sec)       |  |  |  |  |  | 4.14 |  |  |  |  | 6.84 |  | 6.94 |  |  |  |
| Base Follow-Up Headway (sec) |  |  |  |  |  | 2.2  |  |  |  |  | 3.5  |  | 3.3  |  |  |  |
| Follow-Up Headway (sec)      |  |  |  |  |  | 2.22 |  |  |  |  | 3.52 |  | 3.32 |  |  |  |

## Delay, Queue Length, and Level of Service

|                                         |  |  |  |  |     |      |  |  |      |  |  |      |  |  |  |  |
|-----------------------------------------|--|--|--|--|-----|------|--|--|------|--|--|------|--|--|--|--|
| Flow Rate, v (veh/h)                    |  |  |  |  |     | 14   |  |  |      |  |  | 27   |  |  |  |  |
| Capacity, c (veh/h)                     |  |  |  |  |     | 1123 |  |  |      |  |  | 546  |  |  |  |  |
| v/c Ratio                               |  |  |  |  |     | 0.01 |  |  |      |  |  | 0.05 |  |  |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |  |  |  |  |     | 0.0  |  |  |      |  |  | 0.2  |  |  |  |  |
| Control Delay (s/veh)                   |  |  |  |  |     | 8.2  |  |  |      |  |  | 11.9 |  |  |  |  |
| Level of Service (LOS)                  |  |  |  |  |     | A    |  |  |      |  |  | B    |  |  |  |  |
| Approach Delay (s/veh)                  |  |  |  |  | 0.4 |      |  |  | 11.9 |  |  |      |  |  |  |  |
| Approach LOS                            |  |  |  |  |     |      |  |  | B    |  |  |      |  |  |  |  |

# Future with Project 2024 - AM.syn

## 6: Pearl Nix Pkwy & Shallowford Rd/West End Ave

|                         |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                                | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Group Flow (vph)   | 99                                                                                | 76                                                                                | 282                                                                               | 67                                                                                | 51                                                                                | 178                                                                               | 222                                                                                | 5                                                                                   | 31                                                                                  | 189                                                                                 | 67                                                                                  |
| v/c Ratio               | 0.30                                                                              | 0.15                                                                              | 0.25                                                                              | 0.29                                                                              | 0.13                                                                              | 0.38                                                                              | 0.11                                                                               | 0.01                                                                                | 0.17                                                                                | 0.32                                                                                | 0.15                                                                                |
| Control Delay           | 22.6                                                                              | 21.9                                                                              | 1.2                                                                               | 36.3                                                                              | 0.7                                                                               | 16.6                                                                              | 14.1                                                                               | 0.0                                                                                 | 36.6                                                                                | 31.3                                                                                | 0.7                                                                                 |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Delay             | 22.6                                                                              | 21.9                                                                              | 1.2                                                                               | 36.3                                                                              | 0.7                                                                               | 16.6                                                                              | 14.1                                                                               | 0.0                                                                                 | 36.6                                                                                | 31.3                                                                                | 0.7                                                                                 |
| Queue Length 50th (ft)  | 33                                                                                | 26                                                                                | 0                                                                                 | 29                                                                                | 0                                                                                 | 40                                                                                | 25                                                                                 | 0                                                                                   | 14                                                                                  | 42                                                                                  | 0                                                                                   |
| Queue Length 95th (ft)  | 70                                                                                | 58                                                                                | 16                                                                                | 67                                                                                | 0                                                                                 | 72                                                                                | 61                                                                                 | 0                                                                                   | 40                                                                                  | 73                                                                                  | 0                                                                                   |
| Internal Link Dist (ft) | 1660                                                                              |                                                                                   |                                                                                   | 848                                                                               |                                                                                   |                                                                                   | 1028                                                                               |                                                                                     |                                                                                     | 2617                                                                                |                                                                                     |
| Turn Bay Length (ft)    | 80                                                                                |                                                                                   |                                                                                   |                                                                                   | 90                                                                                |                                                                                   | 430                                                                                |                                                                                     | 225                                                                                 |                                                                                     | 145                                                                                 |
| Base Capacity (vph)     | 379                                                                               | 806                                                                               | 1514                                                                              | 373                                                                               | 488                                                                               | 1403                                                                              | 3506                                                                               | 1569                                                                                | 237                                                                                 | 1568                                                                                | 823                                                                                 |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Reduced v/c Ratio       | 0.26                                                                              | 0.09                                                                              | 0.19                                                                              | 0.18                                                                              | 0.10                                                                              | 0.13                                                                              | 0.06                                                                               | 0.00                                                                                | 0.13                                                                                | 0.12                                                                                | 0.08                                                                                |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Future with Project 2024 - AM.syn  
6: Pearl Nix Pkwy & Shallowford Rd/West End Ave

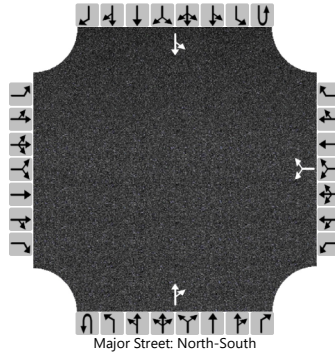
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|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                          | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations               |  |  |  |                                                                                   |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)              | 82                                                                                | 63                                                                                | 234                                                                               | 0                                                                                 | 56                                                                                | 42                                                                                | 148                                                                                 | 184                                                                                 | 4                                                                                   | 26                                                                                  | 157                                                                                 | 56                                                                                  |
| Future Volume (vph)               | 82                                                                                | 63                                                                                | 234                                                                               | 0                                                                                 | 56                                                                                | 42                                                                                | 148                                                                                 | 184                                                                                 | 4                                                                                   | 26                                                                                  | 157                                                                                 | 56                                                                                  |
| Ideal Flow (vphpl)                | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Total Lost time (s)               | 5.2                                                                               | 7.0                                                                               | 6.3                                                                               |                                                                                   | 7.0                                                                               | 7.0                                                                               | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 |
| Lane Util. Factor                 | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                | 0.95                                                                                | 1.00                                                                                |
| Frt                               | 1.00                                                                              | 1.00                                                                              | 0.85                                                                              |                                                                                   | 1.00                                                                              | 0.85                                                                              | 1.00                                                                                | 1.00                                                                                | 0.85                                                                                | 1.00                                                                                | 1.00                                                                                | 0.85                                                                                |
| Flt Protected                     | 0.95                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                |
| Satd. Flow (prot)                 | 1770                                                                              | 1863                                                                              | 1583                                                                              |                                                                                   | 1863                                                                              | 1583                                                                              | 1770                                                                                | 3539                                                                                | 1583                                                                                | 1770                                                                                | 3539                                                                                | 1583                                                                                |
| Flt Permitted                     | 0.39                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                |
| Satd. Flow (perm)                 | 733                                                                               | 1863                                                                              | 1583                                                                              |                                                                                   | 1863                                                                              | 1583                                                                              | 1770                                                                                | 3539                                                                                | 1583                                                                                | 1770                                                                                | 3539                                                                                | 1583                                                                                |
| Peak-hour factor, PHF             | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              | 0.83                                                                                | 0.83                                                                                | 0.83                                                                                | 0.83                                                                                | 0.83                                                                                | 0.83                                                                                |
| Adj. Flow (vph)                   | 99                                                                                | 76                                                                                | 282                                                                               | 0                                                                                 | 67                                                                                | 51                                                                                | 178                                                                                 | 222                                                                                 | 5                                                                                   | 31                                                                                  | 189                                                                                 | 67                                                                                  |
| RTOR Reduction (vph)              | 0                                                                                 | 0                                                                                 | 138                                                                               | 0                                                                                 | 0                                                                                 | 47                                                                                | 0                                                                                   | 0                                                                                   | 3                                                                                   | 0                                                                                   | 0                                                                                   | 57                                                                                  |
| Lane Group Flow (vph)             | 99                                                                                | 76                                                                                | 144                                                                               | 0                                                                                 | 67                                                                                | 4                                                                                 | 178                                                                                 | 222                                                                                 | 2                                                                                   | 31                                                                                  | 189                                                                                 | 10                                                                                  |
| Turn Type                         | pm+pt                                                                             | NA                                                                                | pm+ov                                                                             |                                                                                   | NA                                                                                | Perm                                                                              | Prot                                                                                | NA                                                                                  | Perm                                                                                | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases                  | 7                                                                                 | 4                                                                                 | 1 10                                                                              |                                                                                   | 8                                                                                 |                                                                                   | 1 10                                                                                | 6                                                                                   |                                                                                     | 5                                                                                   | 2                                                                                   |                                                                                     |
| Permitted Phases                  | 4                                                                                 |                                                                                   | 4                                                                                 | 8                                                                                 |                                                                                   | 8                                                                                 |                                                                                     |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 2                                                                                   |
| Actuated Green, G (s)             | 18.0                                                                              | 18.0                                                                              | 39.4                                                                              |                                                                                   | 6.4                                                                               | 6.4                                                                               | 21.4                                                                                | 36.9                                                                                | 36.9                                                                                | 2.7                                                                                 | 11.9                                                                                | 11.9                                                                                |
| Effective Green, g (s)            | 18.0                                                                              | 18.0                                                                              | 39.4                                                                              |                                                                                   | 6.4                                                                               | 6.4                                                                               | 21.4                                                                                | 36.9                                                                                | 36.9                                                                                | 2.7                                                                                 | 11.9                                                                                | 11.9                                                                                |
| Actuated g/C Ratio                | 0.23                                                                              | 0.23                                                                              | 0.51                                                                              |                                                                                   | 0.08                                                                              | 0.08                                                                              | 0.28                                                                                | 0.48                                                                                | 0.48                                                                                | 0.03                                                                                | 0.15                                                                                | 0.15                                                                                |
| Clearance Time (s)                | 5.2                                                                               | 7.0                                                                               |                                                                                   |                                                                                   | 7.0                                                                               | 7.0                                                                               |                                                                                     | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 |
| Vehicle Extension (s)             | 2.1                                                                               | 2.5                                                                               |                                                                                   |                                                                                   | 3.1                                                                               | 3.1                                                                               |                                                                                     | 6.0                                                                                 | 6.0                                                                                 | 3.1                                                                                 | 5.0                                                                                 | 5.0                                                                                 |
| Lane Grp Cap (vph)                | 256                                                                               | 434                                                                               | 937                                                                               |                                                                                   | 154                                                                               | 131                                                                               | 490                                                                                 | 1691                                                                                | 756                                                                                 | 61                                                                                  | 545                                                                                 | 244                                                                                 |
| v/s Ratio Prot                    | c0.03                                                                             | 0.04                                                                              | 0.04                                                                              |                                                                                   | 0.04                                                                              |                                                                                   | c0.10                                                                               | c0.06                                                                               |                                                                                     | 0.02                                                                                | c0.05                                                                               |                                                                                     |
| v/s Ratio Perm                    | c0.06                                                                             |                                                                                   | 0.05                                                                              |                                                                                   |                                                                                   | 0.00                                                                              |                                                                                     |                                                                                     | 0.00                                                                                |                                                                                     |                                                                                     | 0.01                                                                                |
| v/c Ratio                         | 0.39                                                                              | 0.18                                                                              | 0.15                                                                              |                                                                                   | 0.44                                                                              | 0.03                                                                              | 0.36                                                                                | 0.13                                                                                | 0.00                                                                                | 0.51                                                                                | 0.35                                                                                | 0.04                                                                                |
| Uniform Delay, d1                 | 24.2                                                                              | 23.7                                                                              | 10.0                                                                              |                                                                                   | 33.7                                                                              | 32.6                                                                              | 22.4                                                                                | 11.2                                                                                | 10.5                                                                                | 36.6                                                                                | 29.2                                                                                | 27.8                                                                                |
| Progression Factor                | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Incremental Delay, d2             | 0.4                                                                               | 0.1                                                                               | 0.0                                                                               |                                                                                   | 2.0                                                                               | 0.1                                                                               | 0.2                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 6.7                                                                                 | 0.8                                                                                 | 0.1                                                                                 |
| Delay (s)                         | 24.7                                                                              | 23.8                                                                              | 10.1                                                                              |                                                                                   | 35.7                                                                              | 32.7                                                                              | 22.6                                                                                | 11.3                                                                                | 10.5                                                                                | 43.3                                                                                | 30.0                                                                                | 27.9                                                                                |
| Level of Service                  | C                                                                                 | C                                                                                 | B                                                                                 |                                                                                   | D                                                                                 | C                                                                                 | C                                                                                   | B                                                                                   | B                                                                                   | D                                                                                   | C                                                                                   | C                                                                                   |
| Approach Delay (s)                |                                                                                   | 15.5                                                                              |                                                                                   |                                                                                   | 34.4                                                                              |                                                                                   |                                                                                     | 16.3                                                                                |                                                                                     |                                                                                     | 31.0                                                                                |                                                                                     |
| Approach LOS                      |                                                                                   | B                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                     | B                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| <b>Intersection Summary</b>       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 2000 Control Delay            |                                                                                   |                                                                                   | 21.0                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 2000 Volume to Capacity ratio |                                                                                   |                                                                                   | 0.39                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Actuated Cycle Length (s)         |                                                                                   |                                                                                   | 77.2                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Capacity Utilization |                                                                                   |                                                                                   | 44.2%                                                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Analysis Period (min)             |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| c Critical Lane Group             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

# HCS7 Two-Way Stop-Control Report

## General Information

|                          |                          |                            |                          |
|--------------------------|--------------------------|----------------------------|--------------------------|
| Analyst                  | A. Simmons               | Intersection               | Skelton Rd @ Site Dwy #1 |
| Agency/Co.               | Keck & Wood              | Jurisdiction               | City of Gainesville      |
| Date Performed           | 8/31/2021                | East/West Street           | Site Dwy #1              |
| Analysis Year            | 2024                     | North/South Street         | Skelton Rd               |
| Time Analyzed            | PM Peak                  | Peak Hour Factor           | 0.85                     |
| Intersection Orientation | North-South              | Analysis Time Period (hrs) | 0.25                     |
| Project Description      | Future with Project 2024 |                            |                          |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |    |    | Westbound |   |    |    | Northbound |   |     |    | Southbound |    |     |   |
|----------------------------|-----------|----|----|----|-----------|---|----|----|------------|---|-----|----|------------|----|-----|---|
| Movement                   | U         | L  | T  | R  | U         | L | T  | R  | U          | L | T   | R  | U          | L  | T   | R |
| Priority                   |           | 10 | 11 | 12 |           | 7 | 8  | 9  | 1U         | 1 | 2   | 3  | 4U         | 4  | 5   | 6 |
| Number of Lanes            |           | 0  | 0  | 0  |           | 0 | 1  | 0  | 0          | 0 | 1   | 0  | 0          | 0  | 1   | 0 |
| Configuration              |           |    |    |    |           |   | LR |    |            |   |     | TR |            | LT |     |   |
| Volume (veh/h)             |           |    |    |    |           | 4 |    | 16 |            |   | 325 | 5  |            | 22 | 306 |   |
| Percent Heavy Vehicles (%) |           |    |    |    |           | 2 |    | 2  |            |   |     |    |            | 2  |     |   |
| Proportion Time Blocked    |           |    |    |    |           |   |    |    |            |   |     |    |            |    |     |   |
| Percent Grade (%)          |           |    |    |    | 0         |   |    |    |            |   |     |    |            |    |     |   |
| Right Turn Channelized     |           |    |    |    |           |   |    |    |            |   |     |    |            |    |     |   |
| Median Type   Storage      | Undivided |    |    |    |           |   |    |    |            |   |     |    |            |    |     |   |

## Critical and Follow-up Headways

|                              |  |  |  |  |  |      |  |      |  |  |  |  |  |      |  |  |
|------------------------------|--|--|--|--|--|------|--|------|--|--|--|--|--|------|--|--|
| Base Critical Headway (sec)  |  |  |  |  |  | 7.1  |  | 6.2  |  |  |  |  |  | 4.1  |  |  |
| Critical Headway (sec)       |  |  |  |  |  | 6.42 |  | 6.22 |  |  |  |  |  | 4.12 |  |  |
| Base Follow-Up Headway (sec) |  |  |  |  |  | 3.5  |  | 3.3  |  |  |  |  |  | 2.2  |  |  |
| Follow-Up Headway (sec)      |  |  |  |  |  | 3.52 |  | 3.32 |  |  |  |  |  | 2.22 |  |  |

## Delay, Queue Length, and Level of Service

|                                         |  |  |  |  |      |      |  |  |  |  |  |  |     |      |  |  |
|-----------------------------------------|--|--|--|--|------|------|--|--|--|--|--|--|-----|------|--|--|
| Flow Rate, v (veh/h)                    |  |  |  |  |      | 24   |  |  |  |  |  |  |     | 26   |  |  |
| Capacity, c (veh/h)                     |  |  |  |  |      | 560  |  |  |  |  |  |  |     | 1170 |  |  |
| v/c Ratio                               |  |  |  |  |      | 0.04 |  |  |  |  |  |  |     | 0.02 |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |  |  |  |  |      | 0.1  |  |  |  |  |  |  |     | 0.1  |  |  |
| Control Delay (s/veh)                   |  |  |  |  |      | 11.7 |  |  |  |  |  |  |     | 8.1  |  |  |
| Level of Service (LOS)                  |  |  |  |  |      | B    |  |  |  |  |  |  |     | A    |  |  |
| Approach Delay (s/veh)                  |  |  |  |  | 11.7 |      |  |  |  |  |  |  | 0.8 |      |  |  |
| Approach LOS                            |  |  |  |  | B    |      |  |  |  |  |  |  |     |      |  |  |



## Future with Project 2024 - PM.syn

### 2: Skelton Rd & Shallowford Rd

|                         |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | SET                                                                               | NWL                                                                               | NWT                                                                               | NEL                                                                               | NER                                                                               |
| Lane Group Flow (vph)   | 611                                                                               | 232                                                                               | 405                                                                               | 173                                                                               | 298                                                                               |
| v/c Ratio               | 0.29                                                                              | 0.38                                                                              | 0.15                                                                              | 0.69                                                                              | 0.46                                                                              |
| Control Delay           | 11.5                                                                              | 7.1                                                                               | 4.9                                                                               | 62.4                                                                              | 7.3                                                                               |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |
| Total Delay             | 11.5                                                                              | 7.1                                                                               | 4.9                                                                               | 62.4                                                                              | 7.3                                                                               |
| Queue Length 50th (ft)  | 98                                                                                | 45                                                                                | 40                                                                                | 129                                                                               | 17                                                                                |
| Queue Length 95th (ft)  | 167                                                                               | 87                                                                                | 68                                                                                | 195                                                                               | 76                                                                                |
| Internal Link Dist (ft) | 866                                                                               |                                                                                   | 1660                                                                              | 296                                                                               |                                                                                   |
| Turn Bay Length (ft)    |                                                                                   | 80                                                                                |                                                                                   |                                                                                   | 250                                                                               |
| Base Capacity (vph)     | 2075                                                                              | 709                                                                               | 2645                                                                              | 491                                                                               | 731                                                                               |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Reduced v/c Ratio       | 0.29                                                                              | 0.33                                                                              | 0.15                                                                              | 0.35                                                                              | 0.41                                                                              |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

Future with Project 2024 - PM.syn  
2: Skelton Rd & Shallowford Rd

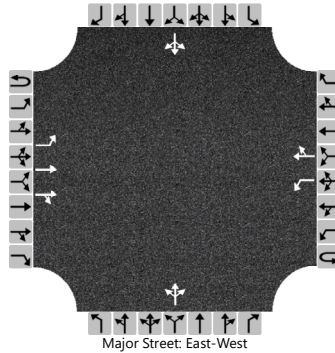
|                                   |  |  |  |  |  |  |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Movement                          | SET                                                                               | SER                                                                               | NWL                                                                               | NWT                                                                               | NEL                                                                               | NER                                                                               |
| Lane Configurations               | ↑↑                                                                                |                                                                                   | ↵                                                                                 | ↑↑                                                                                | ↵                                                                                 | ↵                                                                                 |
| Traffic Volume (vph)              | 419                                                                               | 168                                                                               | 223                                                                               | 389                                                                               | 166                                                                               | 286                                                                               |
| Future Volume (vph)               | 419                                                                               | 168                                                                               | 223                                                                               | 389                                                                               | 166                                                                               | 286                                                                               |
| Ideal Flow (vphpl)                | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              |
| Total Lost time (s)               | 6.5                                                                               |                                                                                   | 6.5                                                                               | 6.5                                                                               | 6.7                                                                               | 6.5                                                                               |
| Lane Util. Factor                 | 0.95                                                                              |                                                                                   | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                              |
| Frt                               | 0.96                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.85                                                                              |
| Flt Protected                     | 1.00                                                                              |                                                                                   | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              |
| Satd. Flow (prot)                 | 3387                                                                              |                                                                                   | 1770                                                                              | 3539                                                                              | 1770                                                                              | 1583                                                                              |
| Flt Permitted                     | 1.00                                                                              |                                                                                   | 0.40                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              |
| Satd. Flow (perm)                 | 3387                                                                              |                                                                                   | 743                                                                               | 3539                                                                              | 1770                                                                              | 1583                                                                              |
| Peak-hour factor, PHF             | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              |
| Adj. Flow (vph)                   | 436                                                                               | 175                                                                               | 232                                                                               | 405                                                                               | 173                                                                               | 298                                                                               |
| RTOR Reduction (vph)              | 24                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 206                                                                               |
| Lane Group Flow (vph)             | 587                                                                               | 0                                                                                 | 232                                                                               | 405                                                                               | 173                                                                               | 92                                                                                |
| Turn Type                         | NA                                                                                |                                                                                   | D.P+P                                                                             | NA                                                                                | Prot                                                                              | pm+ov                                                                             |
| Protected Phases                  | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 | 4                                                                                 | 1                                                                                 |
| Permitted Phases                  |                                                                                   |                                                                                   | 2                                                                                 |                                                                                   |                                                                                   | 4                                                                                 |
| Actuated Green, G (s)             | 72.7                                                                              |                                                                                   | 83.2                                                                              | 89.7                                                                              | 17.1                                                                              | 27.6                                                                              |
| Effective Green, g (s)            | 72.7                                                                              |                                                                                   | 83.2                                                                              | 89.7                                                                              | 17.1                                                                              | 27.6                                                                              |
| Actuated g/C Ratio                | 0.61                                                                              |                                                                                   | 0.69                                                                              | 0.75                                                                              | 0.14                                                                              | 0.23                                                                              |
| Clearance Time (s)                | 6.5                                                                               |                                                                                   | 6.5                                                                               | 6.5                                                                               | 6.7                                                                               | 6.5                                                                               |
| Vehicle Extension (s)             | 6.0                                                                               |                                                                                   | 3.0                                                                               | 6.0                                                                               | 3.0                                                                               | 3.0                                                                               |
| Lane Grp Cap (vph)                | 2051                                                                              |                                                                                   | 605                                                                               | 2645                                                                              | 252                                                                               | 364                                                                               |
| v/s Ratio Prot                    | 0.17                                                                              |                                                                                   | c0.03                                                                             | 0.11                                                                              | c0.10                                                                             | 0.02                                                                              |
| v/s Ratio Perm                    |                                                                                   |                                                                                   | c0.23                                                                             |                                                                                   |                                                                                   | 0.04                                                                              |
| v/c Ratio                         | 0.29                                                                              |                                                                                   | 0.38                                                                              | 0.15                                                                              | 0.69                                                                              | 0.25                                                                              |
| Uniform Delay, d1                 | 11.3                                                                              |                                                                                   | 6.6                                                                               | 4.3                                                                               | 48.9                                                                              | 37.8                                                                              |
| Progression Factor                | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Incremental Delay, d2             | 0.4                                                                               |                                                                                   | 0.4                                                                               | 0.1                                                                               | 7.5                                                                               | 0.4                                                                               |
| Delay (s)                         | 11.6                                                                              |                                                                                   | 7.0                                                                               | 4.4                                                                               | 56.4                                                                              | 38.1                                                                              |
| Level of Service                  | B                                                                                 |                                                                                   | A                                                                                 | A                                                                                 | E                                                                                 | D                                                                                 |
| Approach Delay (s)                | 11.6                                                                              |                                                                                   |                                                                                   | 5.4                                                                               | 44.9                                                                              |                                                                                   |
| Approach LOS                      | B                                                                                 |                                                                                   |                                                                                   | A                                                                                 | D                                                                                 |                                                                                   |
| <b>Intersection Summary</b>       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| HCM 2000 Control Delay            |                                                                                   |                                                                                   | 18.4                                                                              |                                                                                   | HCM 2000 Level of Service                                                         | B                                                                                 |
| HCM 2000 Volume to Capacity ratio |                                                                                   |                                                                                   | 0.44                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Actuated Cycle Length (s)         |                                                                                   |                                                                                   | 120.0                                                                             |                                                                                   | Sum of lost time (s)                                                              | 19.7                                                                              |
| Intersection Capacity Utilization |                                                                                   |                                                                                   | 54.9%                                                                             |                                                                                   | ICU Level of Service                                                              | A                                                                                 |
| Analysis Period (min)             |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |
| c Critical Lane Group             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

# HCS7 Two-Way Stop-Control Report

## General Information

|                          |                          |                            |                           |
|--------------------------|--------------------------|----------------------------|---------------------------|
| Analyst                  | A. Simmons               | Intersection               | Shallowford @ Site Dwy #2 |
| Agency/Co.               | Keck & Wood              | Jurisdiction               | City of Gainesville       |
| Date Performed           | 8/31/2021                | East/West Street           | Shallowford Rd            |
| Analysis Year            | 2024                     | North/South Street         | Site Dwy #2               |
| Time Analyzed            | PM Peak                  | Peak Hour Factor           | 0.95                      |
| Intersection Orientation | East-West                | Analysis Time Period (hrs) | 0.25                      |
| Project Description      | Future with Project 2024 |                            |                           |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |    | Westbound |    |     |    | Northbound |    |     |    | Southbound |    |     |    |
|----------------------------|-----------|---|-----|----|-----------|----|-----|----|------------|----|-----|----|------------|----|-----|----|
| Movement                   | U         | L | T   | R  | U         | L  | T   | R  | U          | L  | T   | R  | U          | L  | T   | R  |
| Priority                   | 1U        | 1 | 2   | 3  | 4U        | 4  | 5   | 6  |            | 7  | 8   | 9  |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 1 | 2   | 0  | 0         | 1  | 1   | 0  |            | 0  | 1   | 0  |            | 0  | 1   | 0  |
| Configuration              |           | L | T   | TR |           | L  |     | TR |            |    | LTR |    |            |    | LTR |    |
| Volume (veh/h)             |           | 1 | 703 | 30 | 0         | 24 | 631 | 0  |            | 17 | 0   | 23 |            | 1  | 0   | 9  |
| Percent Heavy Vehicles (%) |           | 2 |     |    | 2         | 2  |     |    |            | 2  | 2   | 2  |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |   |     |    |           |    |     |    |            |    |     |    |            |    |     |    |
| Percent Grade (%)          |           |   |     |    |           |    |     |    | 0          |    |     |    | 0          |    |     |    |
| Right Turn Channelized     |           |   |     |    |           |    |     |    |            |    |     |    |            |    |     |    |
| Median Type   Storage      | Undivided |   |     |    |           |    |     |    |            |    |     |    |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.5  | 6.5  | 6.9  |  | 7.5  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.14 |  |  |  | 4.14 |  |  |  | 7.54 | 6.54 | 6.94 |  | 7.54 | 6.54 | 6.24 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

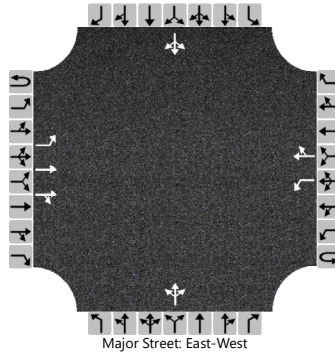
|                                         |     |      |  |  |     |      |  |  |      |  |      |  |      |  |      |  |
|-----------------------------------------|-----|------|--|--|-----|------|--|--|------|--|------|--|------|--|------|--|
| Flow Rate, v (veh/h)                    |     | 1    |  |  |     | 25   |  |  |      |  | 42   |  |      |  | 11   |  |
| Capacity, c (veh/h)                     |     | 921  |  |  |     | 839  |  |  |      |  | 166  |  |      |  | 386  |  |
| v/c Ratio                               |     | 0.00 |  |  |     | 0.03 |  |  |      |  | 0.25 |  |      |  | 0.03 |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.0  |  |  |     | 0.1  |  |  |      |  | 1.0  |  |      |  | 0.1  |  |
| Control Delay (s/veh)                   |     | 8.9  |  |  |     | 9.4  |  |  |      |  | 33.8 |  |      |  | 14.6 |  |
| Level of Service (LOS)                  |     | A    |  |  |     | A    |  |  |      |  | D    |  |      |  | B    |  |
| Approach Delay (s/veh)                  | 0.0 |      |  |  | 0.3 |      |  |  | 33.8 |  |      |  | 14.6 |  |      |  |
| Approach LOS                            |     |      |  |  |     |      |  |  | D    |  |      |  | B    |  |      |  |

# HCS7 Two-Way Stop-Control Report

## General Information

|                          |                          |                            |                           |
|--------------------------|--------------------------|----------------------------|---------------------------|
| Analyst                  | A. Simmons               | Intersection               | Shallowford @ Site Dwy #3 |
| Agency/Co.               | Keck & Wood              | Jurisdiction               | City of Gainesville       |
| Date Performed           | 8/31/2021                | East/West Street           | Shallowford Rd            |
| Analysis Year            | 2024                     | North/South Street         | Site Dwy #3/Regions Dwy   |
| Time Analyzed            | PM Peak                  | Peak Hour Factor           | 0.85                      |
| Intersection Orientation | East-West                | Analysis Time Period (hrs) | 0.25                      |
| Project Description      | Future with Project 2024 |                            |                           |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |    |     |    | Westbound |    |     |    | Northbound |   |     |    | Southbound |    |     |    |
|----------------------------|-----------|----|-----|----|-----------|----|-----|----|------------|---|-----|----|------------|----|-----|----|
| Movement                   | U         | L  | T   | R  | U         | L  | T   | R  | U          | L | T   | R  | U          | L  | T   | R  |
| Priority                   | 1U        | 1  | 2   | 3  | 4U        | 4  | 5   | 6  |            | 7 | 8   | 9  |            | 10 | 11  | 12 |
| Number of Lanes            | 0         | 1  | 2   | 0  | 0         | 1  | 1   | 0  |            | 0 | 1   | 0  |            | 0  | 1   | 0  |
| Configuration              |           | L  | T   | TR |           | L  |     | TR |            |   | LTR |    |            |    | LTR |    |
| Volume (veh/h)             |           | 14 | 693 | 7  | 0         | 47 | 624 | 24 |            | 7 | 0   | 29 |            | 13 | 0   | 26 |
| Percent Heavy Vehicles (%) |           | 2  |     |    | 2         | 2  |     |    |            | 2 | 2   | 2  |            | 2  | 2   | 2  |
| Proportion Time Blocked    |           |    |     |    |           |    |     |    |            |   |     |    |            |    |     |    |
| Percent Grade (%)          |           |    |     |    |           |    |     |    | 0          |   |     |    | 0          |    |     |    |
| Right Turn Channelized     |           |    |     |    |           |    |     |    |            |   |     |    |            |    |     |    |
| Median Type   Storage      | Undivided |    |     |    |           |    |     |    |            |   |     |    |            |    |     |    |

## Critical and Follow-up Headways

|                              |  |      |  |  |  |      |  |  |  |      |      |      |  |      |      |      |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec)  |  | 4.1  |  |  |  | 4.1  |  |  |  | 7.5  | 6.5  | 6.9  |  | 7.5  | 6.5  | 6.2  |
| Critical Headway (sec)       |  | 4.14 |  |  |  | 4.14 |  |  |  | 7.54 | 6.54 | 6.94 |  | 7.54 | 6.54 | 6.24 |
| Base Follow-Up Headway (sec) |  | 2.2  |  |  |  | 2.2  |  |  |  | 3.5  | 4.0  | 3.3  |  | 3.5  | 4.0  | 3.3  |
| Follow-Up Headway (sec)      |  | 2.22 |  |  |  | 2.22 |  |  |  | 3.52 | 4.02 | 3.32 |  | 3.52 | 4.02 | 3.32 |

## Delay, Queue Length, and Level of Service

|                                         |     |      |  |  |     |      |  |  |      |  |      |  |      |  |  |      |
|-----------------------------------------|-----|------|--|--|-----|------|--|--|------|--|------|--|------|--|--|------|
| Flow Rate, v (veh/h)                    |     | 16   |  |  |     | 55   |  |  |      |  | 42   |  |      |  |  | 46   |
| Capacity, c (veh/h)                     |     | 846  |  |  |     | 802  |  |  |      |  | 188  |  |      |  |  | 208  |
| v/c Ratio                               |     | 0.02 |  |  |     | 0.07 |  |  |      |  | 0.23 |  |      |  |  | 0.22 |
| 95% Queue Length, Q <sub>95</sub> (veh) |     | 0.1  |  |  |     | 0.2  |  |  |      |  | 0.8  |  |      |  |  | 0.8  |
| Control Delay (s/veh)                   |     | 9.3  |  |  |     | 9.8  |  |  |      |  | 29.6 |  |      |  |  | 27.2 |
| Level of Service (LOS)                  |     | A    |  |  |     | A    |  |  |      |  | D    |  |      |  |  | D    |
| Approach Delay (s/veh)                  | 0.2 |      |  |  | 0.7 |      |  |  | 29.6 |  |      |  | 27.2 |  |  |      |
| Approach LOS                            |     |      |  |  |     |      |  |  | D    |  |      |  | D    |  |  |      |

# HCS7 Two-Way Stop-Control Report

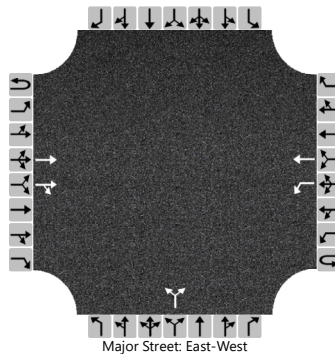
## General Information

|                          |                          |
|--------------------------|--------------------------|
| Analyst                  | A. Simmons               |
| Agency/Co.               | Keck & Wood              |
| Date Performed           | 8/31/2021                |
| Analysis Year            | 2024                     |
| Time Analyzed            | PM Peak                  |
| Intersection Orientation | East-West                |
| Project Description      | Future with Project 2024 |

## Site Information

|                            |                           |
|----------------------------|---------------------------|
| Intersection               | Shallowford @ Site Dwy #4 |
| Jurisdiction               | City of Gainesville       |
| East/West Street           | Shallowford Rd            |
| North/South Street         | Site Dwy #4               |
| Peak Hour Factor           | 0.85                      |
| Analysis Time Period (hrs) | 0.25                      |

## Lanes



## Vehicle Volumes and Adjustments

| Approach                   | Eastbound |   |     |    | Westbound |    |     |   | Northbound |    |    |    | Southbound |    |    |    |
|----------------------------|-----------|---|-----|----|-----------|----|-----|---|------------|----|----|----|------------|----|----|----|
| Movement                   | U         | L | T   | R  | U         | L  | T   | R | U          | L  | T  | R  | U          | L  | T  | R  |
| Priority                   | 1U        | 1 | 2   | 3  | 4U        | 4  | 5   | 6 |            | 7  | 8  | 9  |            | 10 | 11 | 12 |
| Number of Lanes            | 0         | 0 | 2   | 0  | 0         | 1  | 1   | 0 |            | 0  | 1  | 0  |            | 0  | 0  | 0  |
| Configuration              |           |   | T   | TR |           | L  | T   |   |            |    | LR |    |            |    |    |    |
| Volume (veh/h)             |           |   | 739 | 9  | 0         | 20 | 689 |   |            | 12 |    | 19 |            |    |    |    |
| Percent Heavy Vehicles (%) |           |   |     |    | 2         | 2  |     |   |            | 2  |    | 2  |            |    |    |    |
| Proportion Time Blocked    |           |   |     |    |           |    |     |   |            |    |    |    |            |    |    |    |
| Percent Grade (%)          |           |   |     |    |           |    |     |   | 0          |    |    |    |            |    |    |    |
| Right Turn Channelized     |           |   |     |    |           |    |     |   |            |    |    |    |            |    |    |    |
| Median Type   Storage      | Undivided |   |     |    |           |    |     |   |            |    |    |    |            |    |    |    |

## Critical and Follow-up Headways

|                              |  |  |  |  |  |      |  |  |  |      |  |      |  |  |  |  |
|------------------------------|--|--|--|--|--|------|--|--|--|------|--|------|--|--|--|--|
| Base Critical Headway (sec)  |  |  |  |  |  | 4.1  |  |  |  | 7.5  |  | 6.9  |  |  |  |  |
| Critical Headway (sec)       |  |  |  |  |  | 4.14 |  |  |  | 6.84 |  | 6.94 |  |  |  |  |
| Base Follow-Up Headway (sec) |  |  |  |  |  | 2.2  |  |  |  | 3.5  |  | 3.3  |  |  |  |  |
| Follow-Up Headway (sec)      |  |  |  |  |  | 2.22 |  |  |  | 3.52 |  | 3.32 |  |  |  |  |

## Delay, Queue Length, and Level of Service

|                                         |  |  |  |  |     |      |  |  |      |  |      |  |  |  |  |  |
|-----------------------------------------|--|--|--|--|-----|------|--|--|------|--|------|--|--|--|--|--|
| Flow Rate, v (veh/h)                    |  |  |  |  |     | 24   |  |  |      |  | 36   |  |  |  |  |  |
| Capacity, c (veh/h)                     |  |  |  |  |     | 764  |  |  |      |  | 163  |  |  |  |  |  |
| v/c Ratio                               |  |  |  |  |     | 0.03 |  |  |      |  | 0.22 |  |  |  |  |  |
| 95% Queue Length, Q <sub>95</sub> (veh) |  |  |  |  |     | 0.1  |  |  |      |  | 0.8  |  |  |  |  |  |
| Control Delay (s/veh)                   |  |  |  |  |     | 9.9  |  |  |      |  | 33.4 |  |  |  |  |  |
| Level of Service (LOS)                  |  |  |  |  |     | A    |  |  |      |  | D    |  |  |  |  |  |
| Approach Delay (s/veh)                  |  |  |  |  | 0.3 |      |  |  | 33.4 |  |      |  |  |  |  |  |
| Approach LOS                            |  |  |  |  |     |      |  |  | D    |  |      |  |  |  |  |  |



# Future with Project 2024 - PM.syn

## 6: Pearl Nix Pkwy & Shallowford Rd/West End Ave

|                         |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                                | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Group Flow (vph)   | 178                                                                               | 134                                                                               | 488                                                                               | 192                                                                               | 74                                                                                | 389                                                                               | 339                                                                                | 4                                                                                   | 36                                                                                  | 270                                                                                 | 169                                                                                 |
| v/c Ratio               | 0.59                                                                              | 0.25                                                                              | 0.41                                                                              | 0.79                                                                              | 0.19                                                                              | 0.75                                                                              | 0.19                                                                               | 0.00                                                                                | 0.28                                                                                | 0.48                                                                                | 0.39                                                                                |
| Control Delay           | 39.8                                                                              | 32.4                                                                              | 4.5                                                                               | 67.6                                                                              | 1.1                                                                               | 25.8                                                                              | 14.9                                                                               | 0.0                                                                                 | 53.4                                                                                | 42.4                                                                                | 4.7                                                                                 |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Delay             | 39.8                                                                              | 32.4                                                                              | 4.5                                                                               | 67.6                                                                              | 1.1                                                                               | 25.8                                                                              | 14.9                                                                               | 0.0                                                                                 | 53.4                                                                                | 42.4                                                                                | 4.7                                                                                 |
| Queue Length 50th (ft)  | 85                                                                                | 64                                                                                | 55                                                                                | 117                                                                               | 0                                                                                 | 122                                                                               | 67                                                                                 | 0                                                                                   | 22                                                                                  | 81                                                                                  | 0                                                                                   |
| Queue Length 95th (ft)  | #204                                                                              | 145                                                                               | 126                                                                               | #298                                                                              | 0                                                                                 | 176                                                                               | 96                                                                                 | 0                                                                                   | 62                                                                                  | 141                                                                                 | 25                                                                                  |
| Internal Link Dist (ft) | 1660                                                                              |                                                                                   |                                                                                   | 848                                                                               |                                                                                   |                                                                                   | 1028                                                                               |                                                                                     |                                                                                     | 2617                                                                                |                                                                                     |
| Turn Bay Length (ft)    | 80                                                                                |                                                                                   |                                                                                   |                                                                                   | 90                                                                                |                                                                                   | 430                                                                                |                                                                                     | 225                                                                                 |                                                                                     | 145                                                                                 |
| Base Capacity (vph)     | 301                                                                               | 529                                                                               | 1363                                                                              | 244                                                                               | 394                                                                               | 1030                                                                              | 3004                                                                               | 1362                                                                                | 156                                                                                 | 1030                                                                                | 615                                                                                 |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Reduced v/c Ratio       | 0.59                                                                              | 0.25                                                                              | 0.36                                                                              | 0.79                                                                              | 0.19                                                                              | 0.38                                                                              | 0.11                                                                               | 0.00                                                                                | 0.23                                                                                | 0.26                                                                                | 0.27                                                                                |

### Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Future with Project 2024 - PM.syn  
6: Pearl Nix Pkwy & Shallowford Rd/West End Ave

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                          | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations               |  |  |  |                                                                                   |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)              | 171                                                                               | 129                                                                               | 468                                                                               | 3                                                                                 | 181                                                                               | 71                                                                                | 373                                                                                | 325                                                                                 | 4                                                                                   | 35                                                                                  | 259                                                                                 | 162                                                                                 |
| Future Volume (vph)               | 171                                                                               | 129                                                                               | 468                                                                               | 3                                                                                 | 181                                                                               | 71                                                                                | 373                                                                                | 325                                                                                 | 4                                                                                   | 35                                                                                  | 259                                                                                 | 162                                                                                 |
| Ideal Flow (vphpl)                | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Total Lost time (s)               | 5.2                                                                               | 7.0                                                                               | 6.3                                                                               |                                                                                   | 7.0                                                                               | 7.0                                                                               | 6.3                                                                                | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 |
| Lane Util. Factor                 | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                | 0.95                                                                                | 1.00                                                                                |
| Frt                               | 1.00                                                                              | 1.00                                                                              | 0.85                                                                              |                                                                                   | 1.00                                                                              | 0.85                                                                              | 1.00                                                                               | 1.00                                                                                | 0.85                                                                                | 1.00                                                                                | 1.00                                                                                | 0.85                                                                                |
| Flt Protected                     | 0.95                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 0.95                                                                               | 1.00                                                                                | 1.00                                                                                | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                |
| Satd. Flow (prot)                 | 1770                                                                              | 1863                                                                              | 1583                                                                              |                                                                                   | 1861                                                                              | 1583                                                                              | 1770                                                                               | 3539                                                                                | 1583                                                                                | 1770                                                                                | 3539                                                                                | 1583                                                                                |
| Flt Permitted                     | 0.33                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              | 0.95                                                                               | 1.00                                                                                | 1.00                                                                                | 0.95                                                                                | 1.00                                                                                | 1.00                                                                                |
| Satd. Flow (perm)                 | 618                                                                               | 1863                                                                              | 1583                                                                              |                                                                                   | 1851                                                                              | 1583                                                                              | 1770                                                                               | 3539                                                                                | 1583                                                                                | 1770                                                                                | 3539                                                                                | 1583                                                                                |
| Peak-hour factor, PHF             | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                               | 0.96                                                                                | 0.96                                                                                | 0.96                                                                                | 0.96                                                                                | 0.96                                                                                |
| Adj. Flow (vph)                   | 178                                                                               | 134                                                                               | 488                                                                               | 3                                                                                 | 189                                                                               | 74                                                                                | 389                                                                                | 339                                                                                 | 4                                                                                   | 36                                                                                  | 270                                                                                 | 169                                                                                 |
| RTOR Reduction (vph)              | 0                                                                                 | 0                                                                                 | 79                                                                                | 0                                                                                 | 0                                                                                 | 64                                                                                | 0                                                                                  | 0                                                                                   | 2                                                                                   | 0                                                                                   | 0                                                                                   | 143                                                                                 |
| Lane Group Flow (vph)             | 178                                                                               | 134                                                                               | 409                                                                               | 0                                                                                 | 192                                                                               | 10                                                                                | 389                                                                                | 339                                                                                 | 2                                                                                   | 36                                                                                  | 270                                                                                 | 26                                                                                  |
| Turn Type                         | pm+pt                                                                             | NA                                                                                | pm+ov                                                                             | Perm                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                               | NA                                                                                  | Perm                                                                                | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases                  | 7                                                                                 | 4                                                                                 | 1 10                                                                              |                                                                                   | 8                                                                                 |                                                                                   | 1 10                                                                               | 6                                                                                   |                                                                                     | 5                                                                                   | 2                                                                                   |                                                                                     |
| Permitted Phases                  | 4                                                                                 |                                                                                   | 4                                                                                 | 8                                                                                 |                                                                                   | 8                                                                                 |                                                                                    |                                                                                     | 6                                                                                   |                                                                                     |                                                                                     | 2                                                                                   |
| Actuated Green, G (s)             | 28.4                                                                              | 28.4                                                                              | 60.9                                                                              |                                                                                   | 13.3                                                                              | 13.3                                                                              | 32.5                                                                               | 50.0                                                                                | 50.0                                                                                | 4.6                                                                                 | 15.8                                                                                | 15.8                                                                                |
| Effective Green, g (s)            | 28.4                                                                              | 28.4                                                                              | 60.9                                                                              |                                                                                   | 13.3                                                                              | 13.3                                                                              | 32.5                                                                               | 50.0                                                                                | 50.0                                                                                | 4.6                                                                                 | 15.8                                                                                | 15.8                                                                                |
| Actuated g/C Ratio                | 0.28                                                                              | 0.28                                                                              | 0.59                                                                              |                                                                                   | 0.13                                                                              | 0.13                                                                              | 0.32                                                                               | 0.49                                                                                | 0.49                                                                                | 0.04                                                                                | 0.15                                                                                | 0.15                                                                                |
| Clearance Time (s)                | 5.2                                                                               | 7.0                                                                               |                                                                                   |                                                                                   | 7.0                                                                               | 7.0                                                                               |                                                                                    | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 | 6.3                                                                                 |
| Vehicle Extension (s)             | 2.1                                                                               | 2.5                                                                               |                                                                                   |                                                                                   | 3.1                                                                               | 3.1                                                                               |                                                                                    | 6.0                                                                                 | 6.0                                                                                 | 3.1                                                                                 | 5.0                                                                                 | 5.0                                                                                 |
| Lane Grp Cap (vph)                | 282                                                                               | 515                                                                               | 1036                                                                              |                                                                                   | 239                                                                               | 205                                                                               | 560                                                                                | 1724                                                                                | 771                                                                                 | 79                                                                                  | 544                                                                                 | 243                                                                                 |
| v/s Ratio Prot                    | c0.06                                                                             | 0.07                                                                              | 0.12                                                                              |                                                                                   |                                                                                   |                                                                                   | c0.22                                                                              | 0.10                                                                                |                                                                                     | 0.02                                                                                | c0.08                                                                               |                                                                                     |
| v/s Ratio Perm                    | 0.11                                                                              |                                                                                   | 0.13                                                                              |                                                                                   | c0.10                                                                             | 0.01                                                                              |                                                                                    |                                                                                     | 0.00                                                                                |                                                                                     |                                                                                     | 0.02                                                                                |
| v/c Ratio                         | 0.63                                                                              | 0.26                                                                              | 0.39                                                                              |                                                                                   | 0.80                                                                              | 0.05                                                                              | 0.69                                                                               | 0.20                                                                                | 0.00                                                                                | 0.46                                                                                | 0.50                                                                                | 0.11                                                                                |
| Uniform Delay, d1                 | 30.3                                                                              | 28.9                                                                              | 11.1                                                                              |                                                                                   | 43.4                                                                              | 39.1                                                                              | 30.7                                                                               | 14.9                                                                                | 13.5                                                                                | 47.8                                                                                | 39.8                                                                                | 37.3                                                                                |
| Progression Factor                | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Incremental Delay, d2             | 3.5                                                                               | 0.2                                                                               | 0.1                                                                               |                                                                                   | 17.6                                                                              | 0.1                                                                               | 3.0                                                                                | 0.2                                                                                 | 0.0                                                                                 | 4.3                                                                                 | 1.5                                                                                 | 0.4                                                                                 |
| Delay (s)                         | 33.8                                                                              | 29.1                                                                              | 11.2                                                                              |                                                                                   | 60.9                                                                              | 39.2                                                                              | 33.7                                                                               | 15.1                                                                                | 13.5                                                                                | 52.1                                                                                | 41.2                                                                                | 37.7                                                                                |
| Level of Service                  | C                                                                                 | C                                                                                 | B                                                                                 |                                                                                   | E                                                                                 | D                                                                                 | C                                                                                  | B                                                                                   | B                                                                                   | D                                                                                   | D                                                                                   | D                                                                                   |
| Approach Delay (s)                |                                                                                   | 19.2                                                                              |                                                                                   |                                                                                   | 54.9                                                                              |                                                                                   |                                                                                    | 25.0                                                                                |                                                                                     |                                                                                     | 40.8                                                                                |                                                                                     |
| Approach LOS                      |                                                                                   | B                                                                                 |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                    | C                                                                                   |                                                                                     |                                                                                     | D                                                                                   |                                                                                     |
| <b>Intersection Summary</b>       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 2000 Control Delay            |                                                                                   |                                                                                   | 29.8                                                                              |                                                                                   |                                                                                   |                                                                                   | HCM 2000 Level of Service                                                          |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |                                                                                     |
| HCM 2000 Volume to Capacity ratio |                                                                                   |                                                                                   | 0.67                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Actuated Cycle Length (s)         |                                                                                   |                                                                                   | 102.6                                                                             |                                                                                   |                                                                                   |                                                                                   | Sum of lost time (s)                                                               |                                                                                     |                                                                                     | 31.1                                                                                |                                                                                     |                                                                                     |
| Intersection Capacity Utilization |                                                                                   |                                                                                   | 69.5%                                                                             |                                                                                   |                                                                                   |                                                                                   | ICU Level of Service                                                               |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |                                                                                     |
| Analysis Period (min)             |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| c Critical Lane Group             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

**Date Submitted:** 11/29/2021

**Presenter:** Matt Tate

**Item of Business:** Request from **Mark D. Thebaut, D.D.S.** to amend an existing Planned Unit Development (P-U-D) zoning totaling 0.67± acre located on the southeast side of the intersection of Thompson Bridge Road and Lanier Avenue (a/k/a **1398 Thompson Bridge Road, NE**).  
Ward Number: Two  
Tax Parcel Number(s): 01-087-003-001  
Request: Medical/Dental office / restaurant with drive-thru

**Meeting Date:** 12/14/2021

**Purpose of Request:**

The applicant is proposing to amend an existing Planned Unit Development (P-U-D) for a medical/dental office. The property is the current site of a Pizza Hut restaurant which was originally established in 1988. The applicant intends to convert the existing building to a medical/dental office but would like the ability to retain the existing use of a restaurant with a drive-thru. The existing building is 2,841 square feet which will be expanded to 3,335 square feet while utilizing the existing 42 parking spaces. The existing driveway off of Thompson Bridge Road and Lanier Avenue will remain. Adjacent uses include Coleman, Chambers & Rogers Law office, Lanier Federal Credit Union, Martin Properties Construction office, and Westminster Presbyterian Church.

**History/Background:**

**Facts & Issues for Consideration:**

**Department Recommendation:**

Planning staff recommended approval with four conditions. See the Staff Recommendation report for details.

**Department Director:**

Rusty Ligon

**If funding is involved, are funds approved within the current budget?**

N/A

**Amount Requested:**

**Source of Funds:**

**Finance Comments:**

**Administrative Comments:**

**ATTACHMENTS:**

| Description                                          | Type            |
|------------------------------------------------------|-----------------|
| <input type="checkbox"/> Staff Recommendation Report | Report          |
| <input type="checkbox"/> Location Maps               | Backup Material |
| <input type="checkbox"/> Narrative                   | Backup Material |
| <input type="checkbox"/> Survey                      | Backup Material |
| <input type="checkbox"/> Site Plan                   | Backup Material |
| <input type="checkbox"/> Architectural Renderings    | Backup Material |

**GAINESVILLE PLANNING and APPEALS BOARD  
STAFF RECOMMENDATION**

**Applicant** ..... Mark D. Thebaut, D.D.S.  
**Property Owner** ..... Theodore C. Borromeo  
**Location** ..... 1398 Thompson Bridge Road, NE  
**Request** ..... Amend P-U-D zoning  
**Size** ..... 0.67± acre  
**Ward** ..... Two  
**Proposed Use** ..... Medical/Dental Office / restaurant with drive-thru  
**Planning Division Staff Recommendation** ..... **Approval, with conditions**  
**Date** ..... December 14, 2021

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▪ **Applicant's Proposal and Background Information**

The applicant is proposing to amend an existing Planned Unit Development (P-U-D) for a medical/dental office. The property is the current site of the Pizza Hut restaurant which was originally established in 1988. The applicant currently owns the existing TEBO Dentistry located further north in the County at the intersection of Thompson Bridge Road and Garden Boulevard. The applicant intends to relocate and to convert the existing building to a medical/dental office with the ability to retain the existing use of a restaurant with a drive-thru.

The existing restaurant building is 2,841 square feet in size and contains 42 parking spaces with a drive-thru. The proposal includes expanding the rear of the building an additional 500± square feet for a total of 3,335± square feet. The proposed plan will remove the drive-thru window/lane which will increase the building setback from 16-feet to 18-feet from Lanier Avenue. The existing 42 space parking lot and the driveway on Thompson Bridge Road and Lanier Avenue will remain.

The property is located within the Gateway Corridor Overlay Zone which ensures improved development quality for new development along the corridor. The proposed architectural changes to the building will meet the Gateway standards.

▪ **Adjacent Land Use and Zoning**

| Location | Use                                                 | Zoning                           |
|----------|-----------------------------------------------------|----------------------------------|
| North    | Lanier Federal Credit Union                         | Neighborhood Business (N-B)      |
| South    | Coleman, Chambers & Rogers, LLP<br>Law Office       | Neighborhood Business (N-B)      |
| East     | Martin Properties Construction<br>Management Office | Planned Unit Development (P-U-D) |
| West     | Westminster Presbyterian Church                     | Neighborhood Business (N-B)      |

▪ **Other Departmental Comments**

The applicant will be required to coordinate with the Georgia Department of Transportation (GDOT) based on the change of use.

▪ **Zoning History**

*The following zoning actions have taken place in the immediate area during the last ten years:*

**2020** - A request by Walker-Lanier, LLC to rezone a 0.50<sup>±</sup> acre tract located at 989 Lanier Avenue and 1437 Walker Street from Residential-I (R-I) to Residential-II (R-II) was approved with conditions for duplex homes.

**2017** - A request by the 5 MCS, LLC to rezone a 5.24<sup>±</sup> acres tract located at 1012 Enota Avenue from Residential-I (R-I) and Planned Unit Development (P-U-D) to Planned Unit Development (P-U-D) was approved with conditions for an assisted living facility, townhome cottages and a single-family home.

**2017** - A request by Adams & Copeland, LLC for a special use for a hair salon and office within the Office and Institutional (O-I) zoning district located at 1665 Thompson Bridge Road was approved with conditions.

**2017** - A request by Montecito Development for a special use for a convenience store with fuel pumps within the Neighborhood Business (N-B) zoning district located at 1281 Thompson Bridge Road was denied.

**2017** - A request by Montecito Development to rezone a 0.48<sup>±</sup> acres tract located at 149 Enota Avenue from Office and Institutional (O-I) to Neighborhood Business (N-B) zoning district with a special use was denied.

**2016** - A request by Jack Bailey to rezone a 0.61<sup>±</sup> acre tract located at 1665 Thompson Bridge Road NW from Residential-I (R-I) to Office and Institutional (O-I) was approved with conditions for an insurance office.

**2016** - A request by Teresa Vickers for a special use for a hair salon within the Office and Institutional (O-I) zoning district located at 977 and 983 Enota Avenue was approved with conditions.

**2015** - A request by David P. Johnson to rezone a 1.458<sup>±</sup> acres tract located at 1537 and 1551 Thompson Bridge Road; and 135 Virginia Circle from Residential-I (R-I) to Neighborhood Business (N-B) with a special use for a restaurant with drive-thru and retail was denied.

**2014** – A request by Polestar Development, LLC to rezone a 1.741<sup>±</sup> acres tract located at 1435 Thompson Bridge Road from Residential-II (R-II) to Regional Business (R-B) for a grocery store and fuel service station was approved with conditions.

**2013** - A request by Michael Slate to rezone a 0.67<sup>±</sup> acre tract located at 971 Lanier Avenue NE from Residential-I (R-I) to Residential and Office (R-O) for a professional office was approved with conditions.

**2011** - A request by Greg Loyd for a special use for a Dunkin Donut restaurant with a drive thru within the Neighborhood Business (N-B) zoning district located at 1151 Thompson Bridge Road was approved with conditions.



▪ **Staff Analysis**

**(1) Is the proposed use suitable in view of the zoning and development of adjacent and nearby property?**

The adjacent and nearby uses consist of professional offices, banks, restaurants, grocery and a church with zonings of Office and Institutional (O-I), Neighborhood Business (N-B), Regional Business (R-B) and General Business (G-B). Residential uses can be found on both the east and west sides of Thompson Bridge Road behind the commercial properties. It appears the proposed zoning amendment to convert the subject property to a medical/dental office is suitable given the surrounding uses.

**(2) Will the proposed use adversely affect the existing use or usability of adjacent or nearby property?**

The subject property has functioned as a commercial use for approximately 34 years. Given the nature of the request, the proposed dentist office would appear to have less of an impact to the adjacent properties given that the business will have shorter hours of operation and no drive-thru traffic. Existing access and parking are sufficient to handle the change in use.

**(3) Is the proposed use compatible with the purpose and intent of the Comprehensive Plan?**

The proposed development is located within the *Retail/Commercial* land use category. The *Retail/Commercial* land use category includes commercial service activities such as grocery stores, banks, offices, restaurants, theatres, hotels, and automotive related businesses. Commercial uses may be located as a single use in one building or grouped together in a shopping center.

According to the Character Area map for the City of Gainesville, the property is located within the *City Park Neighborhood Center* Character Area.

The vision for the *City Park Neighborhood Center* Character Area states that Thompson Bridge Road should be transformed into a "Complete Street" with sidewalks, landscaping, bike lanes and transit stops. Preservation of local small businesses should be a priority, and key early commercial buildings targeted for preservation. New commercial development should be compatible with the small scale of the older structures, and parking should be located to the rear with inter-parcel connectivity where possible. The area is not anticipated to see major economic growth, but remain oriented toward addressing existing neighborhood needs. Businesses providing basic goods and services that neighborhood residents depend on in daily life (for example food, household supplies, medicine etc.) should be encouraged. Locally-owned / family-owned businesses should be promoted to encourage small business investment / entrepreneurship. Land uses allowed include mixed-use, commercial and public/institutional.

**(4) Are there substantial reasons why the property cannot or should not be used as currently zoned?**

The property is zoned Planned Unit Development (P-U-D) which is a site-specific zoning. Modifications to the proposed plan require the zoning to be amended. The proposed zoning was originally approved in 1988. The existing Pizza Hut restaurant location is closing but does not currently permit a medical/dental office. As part of the P-U-D amendment request, the applicant has asked that a restaurant use still be allowed in case the use ever changes at some point in the future.

**(5) Will the proposed use cause an excessive or burdensome use of public facilities or services, including but not limited to streets, schools, water or sewer utilities, and police or fire protection?**

City water, sewer and public safety services are currently provided to the property. Gainesville Fire Station #2 is located off of Cleveland Highway and is approximately 2.2± miles from the subject property.

According to the “9<sup>th</sup> Edition Trip Generation Manual” as published by the Institute of Transportation Engineers, the estimated trips for a medical-dental office are 121± trips per weekday, 12 A.M. and 14 P.M. peak hour trips.

The proposal may increase ingress and egress traffic movements along Thompson Bridge Road between 8:00 A.M. and 5:00 P.M. given that the current Pizza Hut restaurant is experiencing low traffic volumes. Thompson Bridge Road typically experiences high southbound traffic volumes in the morning and high northbound traffic volumes in the evening. According to the Transportation Master Plan for this area, there are planned turn lane improvements at the intersection of Thompson Bridge Road and Enota Avenue which could help with traffic flow.

The proposal should have no impact on the school system given that it is a non-residential use.

**(6) Is the proposed use supported by new or changing conditions not anticipated by the Comprehensive Plan or reflected in the existing zoning on the property or surrounding properties?**

Thompson Bridge Road has experienced steady commercial growth over the past 40 years but at a slower rate than other corridors such as Jesse Jewell Parkway, Dawsonville Highway and Browns Bridge Road. Much of the growth has included redevelopment of existing commercial properties and the conversion of residential parcels fronting Thompson Bridge Road into office or neighborhood scale retail and restaurant uses. The proposal intends to convert and upgrade the existing Pizza Hut restaurant building to a dental office. The proposal is a positive reuse of the property that will improve the aesthetics of the property and enhance the gateway corridor.

**(7) Does the proposed use reflect a reasonable balance between the promotion of the public health, safety, morality, or general welfare and the right to unrestricted use of property?**

Based on the Comprehensive Plan, adjacent non-residential uses and the existing use of the property, the proposed P-U-D amendment appears to reflect a reasonable balance between the promotion of the public health, safety, morality, or general welfare and the right to unrestricted use of property.

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▪ **Staff Recommendation**

The Planning Division staff is recommending **conditional approval** of this request based on the Comprehensive Plan and the adjacent nonresidential uses.

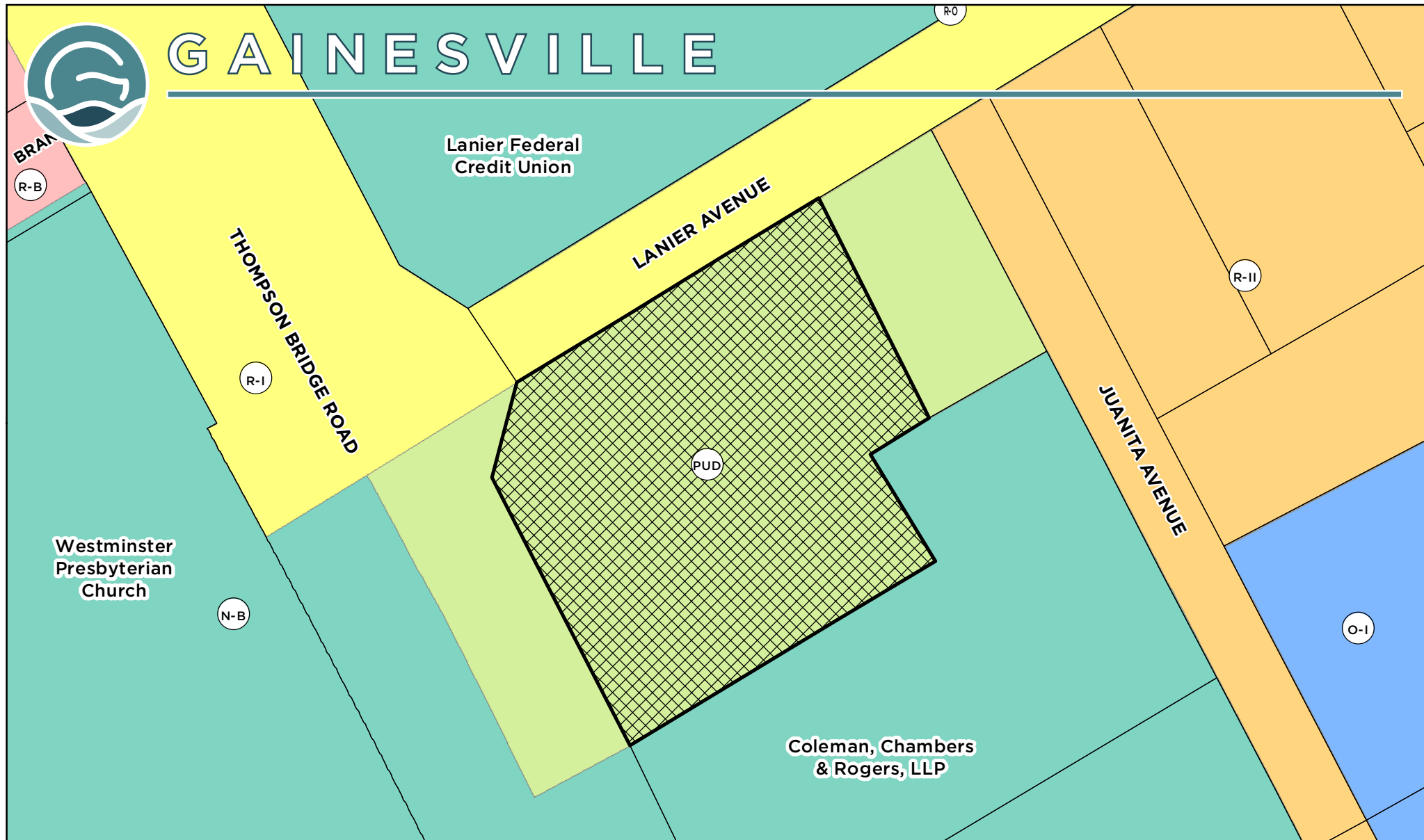
**Conditions**

- 1. The proposed development shall be generally consistent with the standards depicted on the concept plan and architectural renderings provided with this application.**

2. The existing pole sign shall be removed. The subject property shall be limited to one (1) monument sign fronting Thompson Bridge Road, not to exceed 10-feet in height, 64 square feet in size, with internal or indirect lighting. Building signage shall be permitted as regulated within the Gainesville Unified Land Development Code. An electronic message board / changeable copy sign shall not be permitted for the subject property.
3. The developer/property owner shall be required to repair or replace the existing privacy fence located to the rear of the building.
4. All access point design for the subject property shall require approval by the Georgia Department of Transportation in conjunction with the Gainesville Public Works Director. All required access / traffic / sidewalk improvements associated with the proposed development or any additional improvements identified within the Traffic Impact Study shall be at the full expense of the developer/property owner.



# GAINESVILLE



Applicant: **MARK D. THEBAUT, D.D.S.**

## ZONING AMENDMENT REQUEST

Subject Property Address:  
1398 Thompson Bridge Road, NE

Tax Parcel:  
01-087-003-001

Request:

Amend an existing Planned Unit Development (P-U-D) zoning totaling 0.67+/- acre for a medical/dental office.



Subject Property



Meeting Date: 12/14/2021

Map Prepared: 11/10/2021

0 30 60 Feet

Page 1087 of 1097 SCALE: 1" = 60'





# GAINESVILLE



Applicant: **MARK D. THEBAUT, D.D.S.**

Request:

Amend an existing Planned Unit Development (P-U-D) zoning totaling 0.67+/- acre for a medical/dental office.

## ZONING AMENDMENT REQUEST

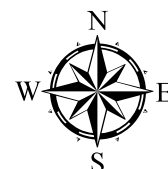
Subject Property Address:  
1398 Thompson Bridge Road, NE

Tax Parcel:  
01-087-003-001



Subject Property

AERIAL FROM 2021



Meeting Date: 12/14/2021

Map Prepared: 11/10/2021

0 30 60 Feet

Page 1088 of 1097

SCALE: 1" = 60'



**WRITTEN NARRATIVE AND JUSTIFICATION FOR ZONING AMENDMENT**

**Rezoning Application  
City of Gainesville, Hall County, Georgia**

**Applicant:**

Mark D. Thebaut, D.D.S.

**Property:**

Tax Parcel ID 010870003001

±.687 Acres of Land

Located at 1398 Thompson Bridge Rd, Gainesville, Georgia 30501

**From PUD (Restaurant) to PUD (Restaurant and Medical/Dental Office)**

**Submitted for Applicant by:**

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## **I. INTRODUCTION**

This Application for a Zoning Amendment is submitted for a .687-acre parcel of land located in Land Lot 146 of the 9<sup>th</sup> District of Hall County, Georgia, identified as Tax Parcel 010870003001 (hereinafter the “Property”). The Property is shown on the survey prepared by Georgia Premier Land Services, Inc., dated September 22, 2021, and filed with this Application. The Property that is the subject of this zoning amendment is owned by Theodore C. Borromeo and identified as shown below in the Hall County GIS:



The Property is currently zoned PUD (Planned Unit Development) pursuant to the Unified Land Development Code (the “ULDC”). The proposal to allow for the continued use as restaurant with drive thru while expand the permitted uses to include a medical or dental office is consistent with the policies and intent of the PUD. The Applicant, Mark D. Thebaut, D.D.S. (the “Applicant”) now seeks approval of the requested zoning amendment to extend the permitted uses on the Property to include a medical/dental office while maintaining the right to continue use as a restaurant with drive thru.

This document is submitted as the Written Narrative, Justification Letter, and other materials required by the ULDC.

## **II. DESCRIPTION OF THE PROPERTY AND SURROUNDING AREA**

The Property is a primarily square tract fronting Thompson Bridge Rd. It is currently in operation as a Pizza Hut and is surrounded by other commercial, retail, and professional service businesses. The Property is surrounded by other commercial and office zoning districts including N-B, R-B, G-B, and O-I. The Property’s location at the intersection of Thompson

Bridge Rd and Lanier Ave provides convenient access from all directions of Thompson Bridge Rd while also serving the nearby residential.

The Property lies within the City Park Neighborhood Activity Center and the Gateway Corridor Overlay of the 2030 Comprehensive Plan ("Plan"). As outlined in the Plan, the Overlay seeks to shape the development forms and aesthetics along the major corridor through the City. The Applicant's request seeks to utilize the existing building with cosmetic changes that are in line with the policies and intent of the Overlay and the Plan.

### **III. PROJECT SUMMARY**

As shown on the site plan prepared by Reed Planning & Design on October 18, 2021 and filed with this Application (hereinafter the "Site Plan"), the Applicant proposes to expand the footprint of the existing building from 2,841sf to 3,335sf. The Property will utilize the existing detention pond and maintain the current 42 parking spaces. Applicant plans to make cosmetic improvements to the building in keeping with the ULDC as the building transitions to use as a medical or dental office per the Zoning Amendment request.

As indicated, the surrounding area is characterized by existing mix of commercial and offices uses in accordance with the Plan. Accordingly, the Applicant's request is consistent with surrounding uses and the stated goals of the Plan.

### **IV. JUSTIFICATION FOR REZONING**

The Applicant respectfully submits that "Uniform Land Development Code" (the "ULDC") as amended from time to time, to the extent that it classifies the Property in any zoning district that would preclude the continued and future use as a planned unit development (PUD) is unconstitutional as a taking of property, a denial of equal protection, an arbitrary and capricious act, and an unlawful delegation of authority under the specific constitutional provisions later set forth herein. Any existing inconsistent zoning of the Property pursuant to the ULDC deprives the Applicant and Property owner of any alternative reasonable use and development of the Property. Additionally, all other zoning classifications, including ones intervening between the existing classification and that requested herein, would deprive the Applicant and Property owner of any reasonable use and development of the Property. Further, any attempt by the Mayor and Council of the City of Gainesville to impose greater restrictions upon the manner in which the Property will be used than presently exist would be equally unlawful.

Accordingly, Applicant submits that the current zoning classification with a use limitation as a restaurant with drive thru, and any other zoning of the Property save for what has been requested as established in the ULDC constitute an arbitrary and unreasonable use of the zoning and police powers because they bear no substantial relationship to the public health, safety, morality or general welfare of the public and substantially harm the Applicant and Property owner. All inconsistent zoning classifications between the existing zoning and the zoning requested hereunder would constitute an arbitrary and unreasonable use of the zoning and police powers because they bear or would bear no substantial relationship to the public health, safety, morality,



or general welfare of the public and would substantially harm the Applicant and Property owner. Further, the existing inconsistent zoning classification constitutes, and all zoning and plan classifications intervening between the existing inconsistent zoning classification and that required to develop this Project would constitute, a taking of the owner's private property without just compensation and without due process in violation of the Fifth Amendment and Fourteenth Amendment of the Constitution of the United States, and Article I, Section I, Paragraph I and Article I, Section III, Paragraph I of the Constitution of the State of Georgia and the Due Process and Equal Protection Clauses of the Fourteenth Amendment to the Constitution of the United States.

Further, the Applicant respectfully submits that failure to approve the requested zoning amendment would be unconstitutional and would discriminate in an arbitrary, capricious and unreasonable manner between the Applicant and Property owner and owners of similarly situated property in violation of Article I, Section III, Paragraph I of the Constitution of the State of Georgia and the Equal Protection Clause of the Fourteenth Amendment of the Constitution of the United States.

Finally, the Applicant respectfully submits that the Mayor and Council of the City of Gainesville cannot lawfully impose more restrictive standards upon the use of the Property than presently exists, as to do so not only would constitute a taking of the Property as set forth above, but also would amount to an unlawful delegation of their authority, in response to neighborhood opposition, in violation of Article IX, Section IV, Paragraph II of the Georgia Constitution.

This Application meets favorably with the prescribed test set out by the Georgia Supreme Court to be used in establishing the constitutional balance between private property rights and zoning and planning as an expression of the government's police power. See *Guhl v. Holcomb Bridge Road Corp.*, 238 Ga. 322 (1977).

## **V. CONCLUSION**

For the foregoing reasons, the Applicant respectfully requests that this Zoning Amendment application to allow for the continued use as a restaurant with drive through and including the allowable use of a medical or dental office be approved. The Applicant welcomes the opportunity to meet with the City of Gainesville Planning Department staff to answer any questions or to address any concerns relating to this Letter of Intent or supporting materials.

Respectfully submitted this 25<sup>th</sup> day of October, 2021.

**ANDERSEN, TATE & CARR, P.C.**

*Shaun R. Adams*

Shaun R. Adams, Esq.

Enclosures  
SRA/ag





# **SITE SUMMARY**

SITE AREA = 0.887 ACRES  
 ZONING = PUD  
 PROPOSED CHANGE OF PLAN FROM  
 RESTAURANT TO DENTAL OFFICE  
 SETBACKS = PER BUILDING LOCATION  
 WATER = CITY OF GAINESVILLE (PUBLIC)  
 SEWER = CITY OF GAINESVILLE (PUBLIC)

## **PARKING SUMMARY**

PARKING REQUIRED - DENTAL OFFICE  
 1 SPACE PER 150 SF FLOOR AREA  
 PROPOSED OFFICE = 3,335 SF  
 3,335 SF / 150 SF = 22.23 SPACES  
 TOTAL PARKING REQUIRED = 24 SPACES  
 TOTAL PARKING PROVIDED = 42 SPACES (EXISTING)  
 HANDICAP SPACES  
 2 REQUIRED - 2 PROVIDED

## **SURVEY REFERENCE**

BOUNDARY INFORMATION SHOWN PER ALTA / NSPS  
 LAND TITLE SURVEY FOR TERO DENTAL GROUP,  
 PLATINUM POINTS HOLDINGS LLC, AND CHICAGO  
 TITLE INSURANCE COMPANY PREPARED BY GEORGIA  
 PREMIER LAND SERVICES, INC. DATED 9-22-2021.

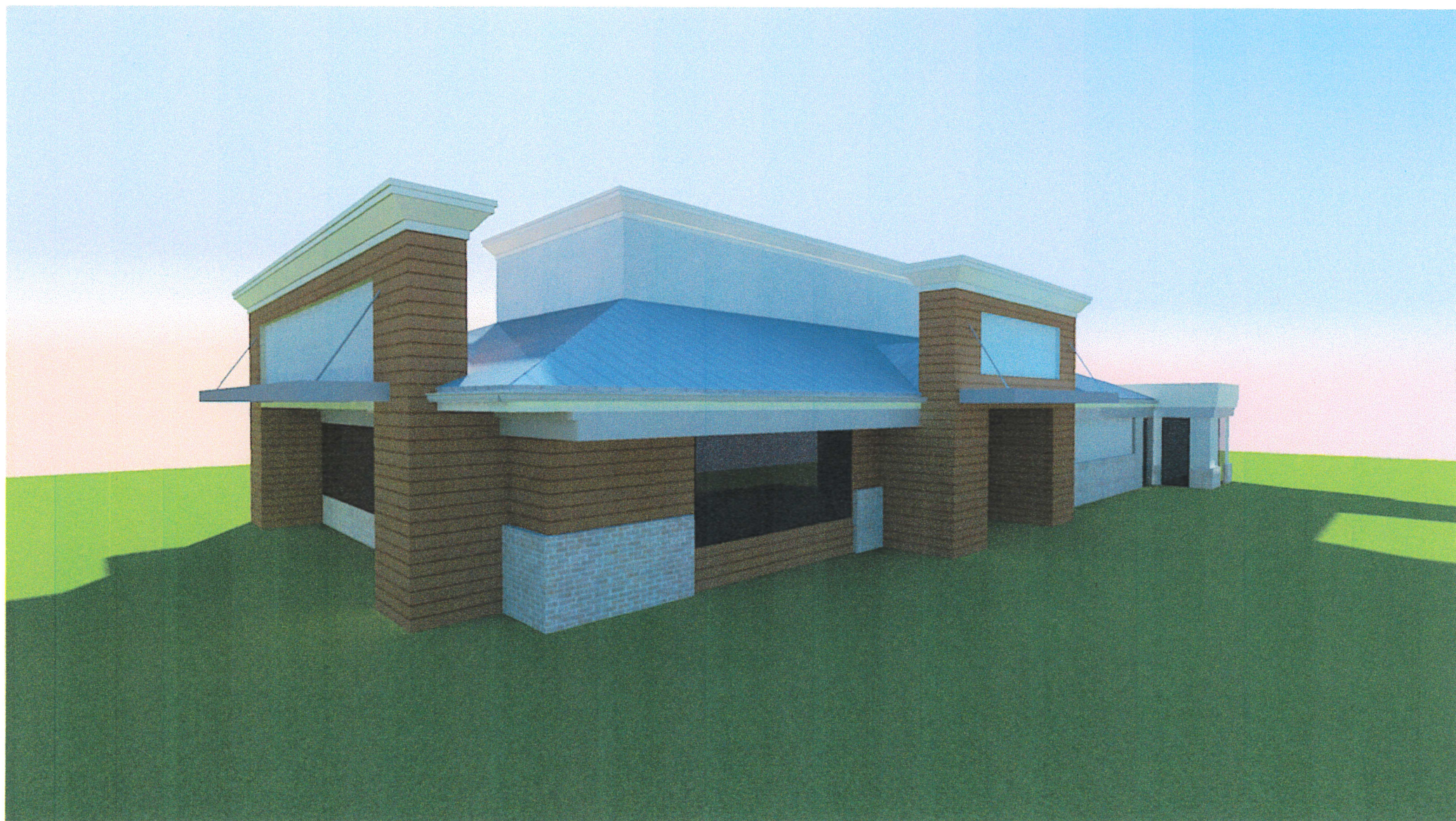
NO PORTION OF SUBJECT PROPERTY LIES  
 WITHIN A DESIGNATED 100 YEAR FLOOD HAZARD  
 AREA AS DEPICTED BY SCALED MAP LOCATION  
 AND GRAPHIC PLOTTING ONLY PER F.L.M.  
 PANEL NO. 131590179 0, DATED APRIL 4, 2018

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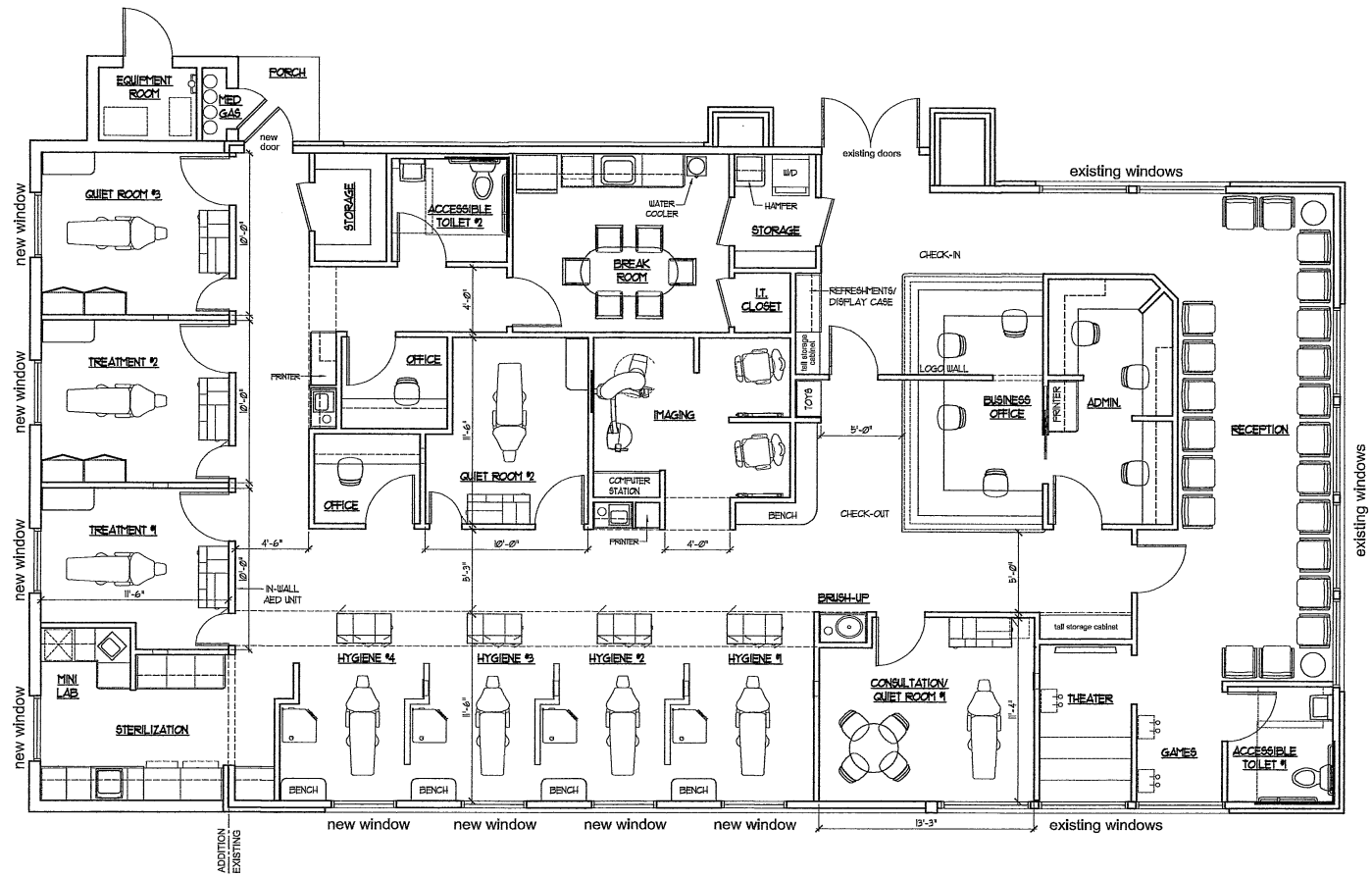












DENTAL EQUIPMENT FLOOR PLAN:  
 SCALE: 1/4" = 1'-0"