Subject: H-23-46 RESUBMITTAL
Date: Tuesday, February 20, 2024 at 3:35:18 PM Eastern Standard Time
From: Anne Pollack
To: Cayce Dagenhart, Robin Reinhart, Kandi McCorkel
CC: Damian Brink
Priority: High
Attachments: image001[100].png, H-23-46 Revised Written Narrative 022024.pdf, H-23-46 Administrative Variance Request 02-20-24.pdf, H-23-46 Revised Zoning & Master Plan 022024.pdf, H-23-46 Traffic Access Analysis.pdf

Good afternoon,
Please find the following for resubmittal into File H-23-46:

Revised narrative
Revised zoning and master plan

Traffic Analysis
Administrative Variance

Please advise if you require any further information. As discussed, we are hopeful to be set for the April Planning Commission hearing and May Board of County Commissioners hearing.

Thank you!

Anne Q. Pollack
Managing Member

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H-23-46 Proposed Corrections to Staff Report

All previous staff comments are not based on the most updated project proposal, which was resubmitted to staff on February 20, 2024. The following list identifies the corrections and changes requested from those in the staff report based on the updated master plan and narrative, and traffic access analysis and administrative variance request.

- Total approximate square footage is 464,000 (.5 FAR), not 425,000

- Requested C-2 uses exclude "publishing and printing service establishments" and "automotive and truck rental"

- Modification to proposed land uses for specific parcels
  - Parcels 1-6: (Total acreage 394,088 +/- sq. ft) – Higher intensity service and commercial/retail/hotel uses permitted in C-1 and C-2 uses specifically approved.
  - Parcels 7-10: (Total acreage 534,635 +/- sq. ft.) business/professional office, light construction service establishment, mini-warehouse, hotel.

- Deviations
  - Requested Deviations (if required)
    - Floor Area Ratio: Maximum FAR of .5 (50%) for all parcels
    - Proposed Outparcel Building Setbacks
      - Front: 10 ft
      - Rear: 10 ft
      - Side: 10 ft
    - Vegetative Buffer around parking lots (Sec 10-26(d)(2)): Reduction from 5-feet to 2.5-feet vegetative buffer around the parking lots where parking lots on adjacent parcels abut each other directly

  - *Not a Deviation*:
    - Perimeter Setback (South) – 75'
    - Large Retail Frontage Buffer (South) – 35'

- Engineering Review
  - Traffic Access Analysis – submitted with application revision February 20, 2024
    - Identifies 3 access points
    - Identifies turn lanes
    - Identifies traffic signal at middle entrance
    -
  - Connectivity to Copeland Way – dedicated but not constructed, per overwhelming neighbor opinion
  - No connectivity to Eastwood Trail, Arvin Drive, Deerpath Drive, per overwhelming neighbor opinion
  - Access to Spring Hill Drive per Traffic Access Analysis and Administrative Variance Request – 3 access points, and signal at middle entrance

SUBMITTED 4/5/24 PTZ H2346

Questions:

- Maximum FAR – Where in the Code is the requirement for .35 (35%) max FAR? is there a need for a deviation?
- Outparcel Setback Requirement – Where in the Code is the requirement for these setbacks? is there a need for a deviation?
- Identify map showing Class 2 Wellhead protection area.

NEXT PAGE: **Proposed Modifications to Performance Conditions**

Proposed Modifications to Performance Conditions

3. Minimum Building Setbacks and Square Footage:

Perimeter Setbacks:

- South: 75'
- East and West: 25'
- North: 35'

Outparcel Building Setbacks

- Front: 10' (deviation from 35')
- Rear: 10' (deviation from 20')
- Side: 10' (deviation from 20')

Maximum Commercial Square Footage: ~~425,000 square feet~~ .5 FAR (464,000 square feet)

4. Minimum Buffers:

- Spring Hill Drive: 35' ~~20' (deviation from 35')~~
- North: 5' with 6' opaque fence (against private park)
- West: 20'
- East: 20'

Perimeter Buffers and Setbacks shall not be included as a part of individual lots. A distinct lot edge shall be marked on lots to denote that preservation of that area is required.

No land disturbing activities are permitted in the perimeter buffers. Buffers shall remain undisturbed, with the exception of the removal of invasive species or dead trees. Buffers may not include any stormwater management facilities or drainage retention areas

7. Based on the submitted Traffic Access Analysis, dated 9/20/23, the Developer shall provide the site access turn lanes and traffic light determined to be warranted therein. ~~A Traffic Access Analysis with queuing analysis is required to be submitted. The Traffic Access Analysis will determine the need for Turn Lanes and overall access along with any other improvements.~~ Any identified improvements will be the responsibility of the developer to install.

8. Connectivity to Copeland Way shall be required to be ~~constructed and~~ dedicated but not constructed. ~~In addition~~ Connectivity to the following streets Eastwood Trail, Arvin Drive, Deerpath Drive shall not ~~also~~ be required.

9. ~~No~~ Direct access to Spring Hill Drive shall be permitted for this project in accordance with the Master Plan, Traffic Access Analysis and Approved Administrative Variance.

~~13. The mixed-use development (commercial and multifamily) shall be limited to a single pedestal sign along US Hwy 19. Sign size shall meet the minimum requirement of the County LDRs.~~

19. C-2 uses shall be limited to:
    - Drive-in restaurants
    - Veterinarian and animal clinics or hospital service establishment
    - Alcoholic beverage dispensation
    - ~~Publishing and printing service establishments~~
    - Light construction service establishments
    - Mini-warehouse
    - Tire and automotive accessory establishments
    - Automotive specialty establishments
    - ~~Automotive and truck rental establishments~~
    - Automobile and truck repair establishments excluding body shops
    - Automobile service establishments

20. Mini Storage shall be limited to ~~2 storys~~ 35-feet in height

Planning & Zoning Commission

AGENDA ITEM

Meeting: 04/08/2024
Department: Planning
Prepared By: Robin Reinhart
Initiator: Omar DePablo
DOC ID: 13934
Legal Request Number:
Bid/Contract Number:

TITLE

H-23-46 - Land America LLC on behalf of DBW ENTERPRISES INC:
Rezoning from PDP(GHC)/Planned Development Project (General Highway Commercial) to PDP(GC)/ Planned Development Project (General Commercial) with specific C-2 uses and Deviations; Spring Hill Drive, approximately 1,300 feet east of its intersection with Aerial Way

BRIEF OVERVIEW

Request:
Rezoning from PDP(GHC)/Planned Development Project (General Highway Commercial) to PDP(GC)/ Planned Development Project (General Commercial) with specific C-2 uses and Deviations

General Location:
Spring Hill Drive, approximately 1,300 feet east of its intersection with Aerial Way

FINANCIAL IMPACT

A matter of policy. There is no financial impact.

LEGAL NOTE

The Planning and Zoning Commission has jurisdiction to make a recommendation on the subject application. The Applicable Criteria for a Zoning District Amendment are contained in Appendix A, (Zoning Code) Article VI. The Applicable Criteria for Planned Development Projects are contained in Appendix A, (Zoning Code) Article VIII. The Zoning District Amendment to the Planned Development District and applicable PDP master plan must be consistent with the Comprehensive Plan.

RECOMMENDATION

It is recommended that the Planning and Zoning Commission recommend the Board of County Commissioners adopt a resolution approving the petitioner's request for a rezoning from PDP(GHC)/Planned Development Project (General Highway Commercial) to PDP(GC)/ Planned Development Project (General Commercial) with specific C-2 uses and Deviations with performance conditions.

REVIEW PROCESS

Omar DePablo	Approved	03/28/2024 4:40 PM
Peter Schwarz	Approved	03/29/2024 10:39 AM

STAFF REPORT

HEARINGS:	Planning & Zoning Commission: April 8, 2024 Board of County Commissioners: May 14, 2024
APPLICANT:	Land America, LLC
FILE NUMBER:	H-23-46
REQUEST:	Rezoning from PDP(GHC)/Planned Development Project (General Highway Commercial) to PDP(GC)/ Planned Development Project (General Commercial) with specific C-2 uses and Deviations
GENERAL LOCATION:	Spring Hill Drive, approximately 1,300' east of its intersection with Aerial Way
PARCEL KEY NUMBERS:	1229218
PUBLIC INQUIRY WORKSHOP:	March 4, 2024

APPLICANT'S REQUEST

On March 2, 1988, the Board of County Commissioners approved a rezoning of CPDP/Combined Planned Development Project, to include PDP(GHC) (MF) (SF) (SU) (REC) and Private Park. The rezoning included Springwood Estates and the subject 21.30-acre commercial site, amongst other parcels. Since the 1988 approval, no development has occurred on the subject site. The parcel is currently entitled for C-1 (General Commercial) uses under its original designation.

The petitioners current request is to rezone from PDP(GHC)/Planned Development Project (General Highway Commercial) to PDP(GC)/ Planned Development Project (General Commercial) with specific C-2 uses and deviations in order to develop the site with ten (10) commercial tracts totaling approximately 425,000 square feet. As part of the request, the petitioner has requested a number of C-2 (Highway Commercial) uses and deviations from the County's Land Development Regulations (LDR's).

Commented [AP1]: 464,000 (.5 FAR)

Requested C-2 Uses

- Drive-in restaurants
- Veterinarian and animal clinics or hospital service establishment
- Alcoholic beverage dispensation

- Publishing and printing service establishments
- Light construction service establishments
- Mini-warehouse
- Tire and automotive accessory establishments
- Automotive specialty establishments
- Automotive and truck rental establishments
- Automobile and truck repair establishments excluding body shops
- Automobile service establishments

All proposed automotive uses will be limited to the outparcels designated on the master plan/ along Spring Hill Drive as Parcels 1 through 6 along Spring Hill Drive.

Proposed land uses and their specific acreage:

As designated on the Master Plan.

- Parcel 7: 2-Story Mini-warehouse - 5.42 acres
- Parcels 8-10: Business/Professional Office and Light construction service establishment (flex space) - 6.66 acres
- Parcels 1-6: Commercial/Retail uses permitted in C-1 Commercial District and C-2 uses specifically approved: 6.13 acres

The proposed development will adhere to a maximum building height of 60', which will be limited to Parcels 1-6, fronting Spring Hill Drive. The 3 proposed buildings in the rear will be a maximum of 35' in height.

Requested Deviations:

- Increase in the maximum Floor Area Ratio (FAR) from 35% up to 60%
- Perimeter Setbacks:
  South: 25' (deviation from 75')
- Proposed Outparcel Building Setbacks
  - Front:10' (deviation from 35')
  - Rear: 10' (deviation from 20')

Commented [AP2]: Removed

Commented [AP3]: Removed

Commented [AP4]: Revised:
Parcels 1-6: (Total acreage 394,088 +/- sq. ft) higher intensity service and commercial/retail/hotel uses permitted in C-1 and C-2 uses specifically approved.
Parcels 7-10: (Total acreage 534,635 +/- sq. ft.) business/professional office, light construction service establishment, mini-warehouse, hotel.

Commented [AP5]: We proposed 60-feet max everywhere (to allow hotel), but can limit to 35-feet in rear

Commented [AP6]: Requested reduction from 5-feet to 2.5- feet regarding vegetative buffer around the parking lots where parking lots on adjacent parcels abut each other directly 10-26(d)(2)

Commented [AP7]: **Unclear where this maximum requirement is coming from.**
Art Sec (D) "*Building Coverage.* *Residential PDPs with single family or single family attached uses, and all PDPs with a residential component shall not exceed more than 35 percent building area coverage for the residential acreage.
*Residential PDPs with multifamily uses and all PDPs with a residential component with multifamily uses shall not exceed more than 45 percent building area coverage for the residential acreage."

Commented [AP8]: Revised plan proposes 50% (.5 FAR)

Commented [AP9]: Revised to 75', so no deviation

Commented [AP10]: Unclear where the outparcel building setbacks requirement comes from.

- Side: 10' (deviation from 20')

- Deviation from the required Large Retail 35' buffer along the full length of the project's frontage. The petitioner is proposing 20'.

Commented [AP11]: Revised proposes 35-feet along frontage (south side-Spring Hill)
Sec 10-21(b)(9)
Art III, Sec 3 (J)(2)(H)(3)

SITE CHARACTERISTICS:

Site Size: 21.3 acres

Surrounding Zoning & Land Uses:
North: PDP(SU); Private Park
South: PDP(GC); Auto Shop and Hair Salon
East: PDP(GHC) (SF); Undeveloped, Single Family
West: PDP(GHC) (SF); Undeveloped, Single Family

Current Zoning: PDP(GHC)/ Planned Development Project (General Highway Commercial)

Future Land Use Map Designation: Residential

ENVIRONMENTAL REVIEW:

Soil Type: Candler Fine Sand

Habitat: Vacant, cleared, undeveloped and identified as urban open pine, mixed hardwood-coniferous, and high density residential, 5 dwellings/acre according to FWC CLC mapping (Florida Cooperative Land Cover Classification System that combines Florida Land Use Cover and Classification System with fish and wildlife data).

Comments: Candler Fine Sands provides habitat suitable for gopher tortoises and commensal species.

Hydrologic Features: The property does not contain Special Protection Areas (SPAs) or wetlands according to County data resources.

Protection Features: The property contains a Class 2 protection Area (WHPAs), according to County data resources.

Commented [AP12]: Applicant would like to be provided with the map identifying the WHPA before agreeing to this condition

Comments: The petitioner shall meet the minimum requirements for uses within a Class 2 Wellhead protection area in accordance with the Ground Water Protection ordinance. Some of the automotives

uses proposed will potentially be regulated as small quantity generators and will be required to meet specific disposal requirements.

Water Quality: This project is located within the Weeki Wachee Priority Focus Area identified by FDEP as contributing nutrients to the Weeki Wachee Riverine System.

Comments: The petitioner must meet the minimum requirements of Florida Friendly Landscaping™ publications for design techniques, principles, materials, plantings, and for required buffers, as applicable.

Flood Zone: C, with a small portion of AE

UTILITIES REVIEW:

The Hernando County Utilities Department (HCUD) does not currently supply water or sewer service to this parcel. There is an existing 12-inch water main that runs on Copeland Way, and an existing 8-inch water main that runs along the north side of Deer Path Drive. There is an existing 6-inch sewer force main that crosses Spring Hill Drive approximately 225 feet east of the parcel, runs north between parcel key #s 1013272 and 1013281, then runs east on the south side of Deer Path Drive. There is an HCUD proposed 16 inch sewer force main, approximately one year away, that will be near the northwest corner of the Spring Hill Drive and Spring Park Way intersection. HCUD has no objection to the request, subject to a utility capacity analysis and connection to the central water and sewer systems at time of vertical construction.

ENGINEERING REVIEW:

The subject parcel is located on the north side of Spring Hill Drive, approximately 1,300 feet east of its intersection with Aerial Way. The petitioners project proposes three (3) access points to Spring Hill Drive and a connection to Copeland Way along the northwest corner of the project. Copeland Way connects to Springwood Estates, which connects to the signalized intersection of Spring Hill Drive and Areial Way.

The County Engineer has reviewed the petitioner's request and indicated the following:

- There is an area of floodplain found within the project area at node NP0280, BFE 63.65.
- A Traffic Access Analysis with queuing analysis is required to be submitted. The Traffic Access Analysis will determine the need for turn lanes and overall access along with any other improvements. Any identified improvements will be the responsibility of the developer to install.

Commented [AP13]: This was submitted with resubmittal. Traffic analysis indicates acceptable operating conditions at roadway segments and intersections without improvements; several site access turn lanes are warranted; and a traffic signal is warranted at the central driveway.

- Connectivity to Copeland Way shall be required to be constructed and dedicated, in addition connectivity to the following streets: Eastwood Trail, Arvin Drive, Deerpath Drive shall also be required.
- No direct access to Spring Hill Drive shall be permitted for this project.
- Sidewalk along Spring Hill Drive and throughout this development shall be required.

LAND USE REVIEW:

Uses:

In addition to the uses allowed in the Planned Development Project (General Commercial) district, the petitioner is requesting the following Highway Commercial uses:

- Drive-in restaurants
- Veterinarian and animal clinics or hospital service establishment
- Alcoholic beverage dispensation
- Publishing and printing service establishments
- Light construction service establishments
- Mini-warehouse
- Tire and automotive accessory establishments
- Automotive specialty establishments
- Automotive and truck rental establishments
- Automobile and truck repair establishments excluding body shops
- Automobile service establishments

Comments: Given that this site is located along a commercial corridor and is surrounded by existing and proposed commercial uses, highway commercial uses are compatible with the area with appropriate performance conditions to avoid any adverse impact to the adjacent residential community.

Building Setbacks

Proposed Perimeter Setbacks:

- Front: 25' (deviation from 75')
- Side: 25'
- Rear: 35'

Commented [AP14]: Neighbors are very opposed to these connections. Staff had originally told Applicant that only Copeland connection was required, which is what Applicant told neighbors at public inquiry meeting. Neighbors are against all connections to project, and connection of Alba and Copeland. Given their objection, does not want to provide the connections.

Commented [AP15]: Does this mean access to project is solely through local roads and residential neighborhood?
Traffic analysis submitted 2/20 should remove any concerns. Developer is proposing 3 entrances and 1 signal. This doesn't align with Code requirement to provide access.
Sec. 6(B)(8)(b) provides: The master plan shall demonstrate at least two vehicular access points providing adequate ingress and egress with appropriate turn lanes, intersection improvements, signage and signalization (as may be required) to accommodate the traffic impacts of the project.

Commented [AP16]: Revision removed this use

Commented [AP17]: Revision removed this use

Commented [AP18]: Revised to be 75-feet, so no deviation

Proposed Outparcel Building Setbacks

Commented [AP19]: Unclear where the outparcel building setbacks requirement comes from.

- Front: 10' (deviation from 35')
- Rear: 10' (deviation from 20')
- Side: 10' (deviation from 20')

Parking:

County LDRs require minimum off-street parking ratios based on the type of use. If the master plan is approved, the petitioner shall be required to meet the minimum parking requirements of the Land Development Regulations.

Lighting:

County LDRs require lighting that enhances the visual impact of the project on the community and to specifically address lighting intensity levels and glare accordingly. Commercial buildings and projects shall be designed to provide safe, convenient and efficient lighting for pedestrians and vehicles.

Large Retail Development Standards:

The subject request is considered a large retail development and as such must comply with the standards provided for in the LDRs. The standards include, but are not limited to, architectural style, parking design, internal pedestrian circulation, and buffering. The master plan approval is a conceptual review. All applicable LDRs relating to large retail development must be met at the time of permit review.

Commented [AP20]: Should be 464,000 sf

The petitioner is proposing a Large Retail Development of approximately 150,000 square feet of commercial. The County's LDRs provide that developments greater than 65,000 square feet in size require approval as a Planned Development Project. Because of the intensity of development, the County may require additional conditions to ensure appropriateness at a particular location. The following items are those the County must address under the Large Retail Development requirements:

1. Mechanical/operational equipment including HVAC located at ground level shall be set back at least one hundred (100) feet from any property line external to the project boundary or any residential area and shall be visually shielded through enhanced screening or shall be located on the roof and shall be visually shielded with a parapet wall. All mechanical/operational equipment shall be sound attenuated as necessary to comply with the county's noise ordinance.

2. For facilities that operate 24 hours a day, manned parking lot security is required between 10:00 PM and sunrise.

3. When the proposed commercial development consists of multiple buildings (excluding outparcels), loading areas and loading docks should be situated between said buildings in a manner which allows the buildings to act as screens. All loading areas/docks shall be set back at least one hundred (100) feet from any property line external to the project boundary or any residential area and shall be screened at 100% opacity through the use of landscape plantings, berms, fences or walls.

4. Large Retail Outdoor lighting shall meet the following requirements:
   a. All fixtures must be full-cutoff or shielded;
   b. All lights must be pointed downward with the exception of low level accent lighting not exceeding 40 watts;
   c. No spillover of light is permitted beyond property boundaries;
   d. Fixtures with outputs of 2,000 lumens or more require manual turn-off switches;
   e. At least fifty percent (50%) of all parking lot lighting must be turned off within one hour after close of business or between 10 p.m. and sunrise, whichever occurs first;
   f. No pole height shall exceed twenty-five (25) feet; and
   g. The placement or use of searchlights shall be prohibited

5. All on-site advertising signs, including outparcels, shall be designed as part of a complete signage system, and shall be limited to ground mounted monument type signs. Ground mounted monument type signs are signs where the bottom edge of the sign is no greater than ten (10) feet above grade and which otherwise meets all sign requirements in this code.

   The predominant sign material shall be similar to the material (e.g., brick, stone, etc.) of the buildings developed on the subject property.

   Comments: The petitioner's master plan does not depict development signage along SR 50. The petitioner has not indicated the sizes or heights of the proposed signs. If approved, the petitioner shall meet all County LDR's for signage, including size, type, setback, and number.

6. The master plan shall meet the following increased setbacks and buffering requirements:

   a. *Setbacks.* Where any side or rear lot line adjoins (excluding roads) a residential- or agricultural-zoned property or an existing residential use, then no building shall be located within one hundred (100) feet of said lot line.

Commented [AP21]: Plan identifies 100' line, within which no building can be located

b. *Perimeter Buffering.* A perimeter buffer shall be required along the full length of all streets serving a large retail development. The buffer shall be a minimum of thirty-five (35) feet in width and comprised of retained natural vegetation or planted with native plant species.

Comments: The petitioner is proposing the following buffers:

Spring Hill Drive:	20' (deviation from 35')
North:	Petitioner indicates there is an existing private park in the Springwood subdivision which provides 250'+/- of separation from the proposed development.
West:	20'
East:	20'

The petitioner has not indicated any buffers within the commercial parcels. If approved, the petitioner shall meet the minimum Large Retail Development commercial buffer requirements of the County LDRs.

If approved, the northern boundary shall provide a 5' buffer with 6' opaque fence.

7. The site design shall provide that pedestrian circulation is coordinated on-site and between adjacent properties, providing for pedestrian circulation between complementary uses.

8. All internal walkways shall comply with Florida Accessibility Code design standards. Additionally, all internal pedestrian walkways shall be distinguished from driving surfaces through the use of durable, low maintenance surface materials such as pavers, scored concrete, or stamped asphalt, to the extent not inconsistent with said standards.

9. Transit facilities, including but limited to bus stops, pull out lanes, transit related signage, shelters, and bicycle racks for transit users, shall be provided as determined by the County to accommodate transit service.

- The County Design Standards for large retail projects provide guidelines for creating safer, efficient, pedestrian-friendly projects with human scale orientation, while discouraging large, nondescript buildings and "unfriendly" pedestrian design, limited landscaping, and vast non-shaded parking lots.

Large Retail Development Signage:

Commented [AP22]: Revision provides 35-foot buffer on Spring Hill Drive

Commented [AP23]: The parcel to the north is zoned PDP(Special Use-SU)
Per Code: *PDP (Special Use):* This category will include open space, conservation and all other uses not specifically enumerated in the Planned Development Project section but shown on the approved PDP Master Plan

Commented [AP24]: Requested deviation from 5ft to 2.5 ft for adjacent parking lots on abutting parcels where there is no roadway in between 10-26(d)(2)

- County LDRs require that any commercially zoned parcel(s) with less than one hundred (100) linear feet of road frontage will be allowed one (1) sign not to exceed one hundred (100) square feet in sign area. Commercially zoned parcels with a road frontage in excess of one hundred (100) linear feet will be allowed one (1) square foot of sign area per linear foot of road frontage with a maximum of two hundred (200) square feet of sign area. For commercially zoned parcels on all other roads and for parcels within any zoning district other than commercial or residential there shall be a maximum of fifty (50) square feet of sign area.

- Shopping centers, malls, strip plazas and other buildings housing more than one (1) business or activity may display no more than one (1) sign for each two hundred (200) feet of frontage, provided they are at least two hundred (200) feet apart along public streets and provided each sign does not exceed the maximum allowed according to County LDRs. The petitioner must meet the minimum sign standards as required by the County LDRs.

Minimum County Required Sign Setbacks (based on total sign surface area):

Up to 75 square feet in area:	5' from property line
75 square feet and up to 150 square feet in area:	10' from property line
150 square feet or greater:	20' from property line

Landscape

The petitioner must meet the minimum requirements of Florida Friendly Landscaping™ publications and the Florida Yards and Neighborhoods Program for design techniques, principles, materials and plantings for required landscaping.

COMPREHENSIVE PLAN REVIEW:

The subject site is located within the Residential Land Use designation on the County's adopted Comprehensive Plan. The area is characterized by commercial uses on portions of the east and west and full commercial on the south. Residential uses exist to the north and portions of the east and west. The subject site within a previously approved mixed use PDP/master plan (approved 1988), which included single family, multifamily, commercial and business park uses.

Residential Category

Objective 1.04B: The Residential Category allows primarily single family, duplex, resort and multi-family housing and associated ancillary uses such as recreational and institutional. Office and certain

commercial uses may be allowed subject to the locational criteria and performance standards of this Plan. Residential density shall not exceed 22 dwelling units per gross acre.

Strategy 1.04B(1): Commercial and institutional uses within the Residential Category are generally associated with medium and high density residential development and may include neighborhood commercial, office professional, recreational, schools, and hospitals. Minor public facilities that do not unduly disturb the peaceful enjoyment of residential uses may also be allowed.

Strategy 1.04B(2): Future residential development will be planned to locate where the Residential Category predominates on the Future Land Use Map as determined by the availability of facilities and services, the need to accommodate future growth, the strategies to discourage the proliferation of urban sprawl, and the impacts to natural resources, including groundwater.

Comments: Commercial projects are permitted in residential land use designations when part of an integral mixed use design. The original project was a mixed use development that included single family, multifamily, and commercial uses. Additionally, the approvals of the subject site predate the adoption of the comprehensive plan. The adoption of the comprehensive plan did not and does not remove previously approved entitlements.

Land Use Compatibility

Objective 1.10B: The County shall establish standards by which land use compatibility is evaluated in the review of proposals for Future Land Use Map amendments, zoning changes, and other land development applications.

Strategy 1.10B(1): Future Land Use Map amendments should be compatible with surrounding development and minimize impact to natural resources without the need for mitigation measures that are extraordinary in scope or difficult to enforce.

Strategy 1.10B(2): Zoning changes should be compatible with surrounding development and minimize impact to natural resources. Impacts may be mitigated through design of building placement, buffers, noise reduction, setbacks and other appropriate planning techniques or performance measures.

Strategy 1.10B(3): Protect existing and future residential areas from encroachment of incompatible uses that are destructive to the character and integrity of the surrounding residential area.

Comments: The petitioner has indicated 20' vegetative buffer will be provided along the west, east and south property boundaries.

Commented [AP25]: 35-feet where adjacent to residential

Planned Development Projects and Standards

Objective 1.10C: Planned Development Project (PDP) zoning introduces flexibility to the land development process. The PDP is developed as a zoning district that may include multiple land uses and provides for the mitigation of impacts through performance standards. The PDP process may be used in any Future Land Use Category.

Strategy 1.10C(1): A Planned Development Project (PDP) is designed as an integral unit with one or more land uses utilizing a Master Plan to illustrate and describe the site layout and characteristics including, but not limited to, uses and use restrictions, density and intensity, site and building layout and design, site coverage and designated open space, construction and phasing plans, and other detailed information about the project.

Comments: The project is proposed as a Planned Development Project Appropriate conditions should be considered to mitigate any potential impacts.

FINDINGS OF FACT:

A rezoning from PDP(GHC)/Planned Development Project (General Highway Commercial) to PDP(GC)/ Planned Development Project (General Commercial) with specific C-2 uses and with Deviations is appropriate based on the following:

1. The proposed use is consistent with the County's adopted Comprehensive Plan and compatible with the surrounding land uses subject to compliance with all performance conditions.

2. The request for a deviation to both the Spring Hill (front) building setbacks and buffer should be considered front a functional and aesthetic standpoint. The remaining proposed deviations are not adverse to public interest subject to compliance with all performance conditions.

Commented [AP26]: Request proposes 75-foot setback and 35-foot buffer - Not a deviation

NOTICE OF APPLICANT RESPONSIBILITY:

The rezoning process is a land use determination and does not constitute a permit for either construction on, or use of, the property, or a Certificate of Concurrency. Prior to use of, or construction on, the property, the petitioner must receive approval from the appropriate County department(s) for the proposed use.

The granting of this land use determination does not protect the owner from civil liability for recorded deed restrictions which may exceed any county land use ordinances. Homeowner associations or architectural review committees require submission of plans for review and approval. The applicant for this land use request should contact the local association or the Public Records for all restrictions applicable to this property.

The applicant, property owner, or developer is responsible for ensuring the performance conditions established herein are provided to all contractors performing work for this project. All applications submitted for development activity on this project are expected to comply with the performance conditions established herein.

STAFF RECOMMENDATION:

It is recommended that the Planning and Zoning Commission recommend the Board of County Commissioners adopt a resolution approving the petitioner's request for a rezoning from PDP(GHC)/Planned Development Project (General Highway Commercial) to PDP(GC)/ Planned Development Project (General Commercial) with specific C-2 uses and Deviations with the following performance conditions:

1. The petitioner must obtain all permits from Hernando County and other applicable agencies and meet all applicable land development regulations, for either construction or use of the property, and complete all applicable development review processes.

2. The petitioner shall provide a wildlife survey, prepared by a qualified professional prior to any development occurring on the property. Furthermore, copies of any required permits shall be provided prior to the issuance of development permits by Hernando County.

3. Minimum Building Setbacks and Square Footage:

   Perimeter Setbacks:
   - South: 75'
   - East and West: 25'
   - North: 35'

   Outparcel Building Setbacks
   - Front: 10' (deviation from 35')
   - Rear: 10' (deviation from 20')
   - Side: 10' (deviation from 20')

Commented [AP27]: Submitted with initial application

Commented [AP28]: Revised plan shows project meets these requirements - no deviation required

Commented [AP29]: Unclear where the outparcel building setbacks requirement comes from.

Maximum commercial square footage: 425,000 square feet

Commented [AP30]: 464,000 (.5 FAR)

4. Minimum Buffers:

   - Spring Hill Drive: 20' (deviation from 35')
   - North: 5' with 6' opaque fence (against private park)
   - West: 20'
   - East: 20'

Commented [AP31]: Project proposes 35-feet, no deviation
Sec 10-21(b)(9)
Art III, Sec 3 (J)(2)(H)(3)

Commented [AP32]: Request proposes 20-feet, but 35-feet when adjacent to residential

Perimeter Buffers and Setbacks shall not be included as a part of individual lots. A distinct lot edge shall be marked on lots to denote that preservation of that area is required.

No land disturbing activities are permitted in the perimeter buffers. Buffers shall remain undisturbed, with the exception of the removal of invasive species or dead trees. Buffers may not include any stormwater management facilities or drainage retention areas.

5.

Commented [AP33]: Is #5 missing?

6. A cross access easement or agreement between the commercial outparcels shall be provided at the time of subdivision plat approval.

7. A Traffic Access Analysis with queuing analysis is required to be submitted. The Traffic Access Analysis will determine the need for Turn Lanes and overall access along with any other improvements. Any identified improvements will be the responsibility of the developer to install.

Commented [AP34]: This was submitted with resubmittal on 2/20/24. Traffic analysis indicates acceptable operating conditions at roadway segments and intersections without improvements; several site access turn lanes are warranted; and a traffic signal is warranted at the central driveway.

8. Connectivity to Copeland Way shall be required to be constructed and dedicated in addition connectivity to the following streets Eastwood Trail, Arvin Drive, Deerpath Drive shall also be required.

Commented [AP35]: Neighbors do not support. How will this be managed given design proposal?

9. No direct access to Spring Hill Drive shall be permitted for this project.

Commented [AP36]: All access through local streets? Traffic analysis should relieve concerns.
Sec. 6(B)(8)(b) provides: The master plan shall demonstrate at least two vehicular access points providing adequate ingress and egress with appropriate turn lanes, intersection improvements, signage and signalization (as may be required) to accommodate the traffic impacts of the project.

10. Sidewalk along Spring Hill Drive and throughout this development shall be required.

11. Geotechnical subsurface testing and reporting in accordance with the County's Facility Design Guidelines shall be conducted for all Drainage Retention Areas (DRA) within the proposed project.

12. The predominant sign material shall be similar to the material (e.g., brick, stone, etc.) of the commercial buildings developed on the subject property. All on-site advertising signs, including outparcels and the subdivision entrance signs, shall be designed as part of a complete signage system, and shall be limited to ground mounted monument type signs. Ground mounted monument type signs are signs where the bottom edge of the sign

is no greater than ten (10) feet above grade and which otherwise meets all sign requirements in the Hernando County Code of Ordinances.

13. The mixed-use development (commercial and multifamily) shall be limited to a single pedestal sign along US Hwy 19. Sign size shall meet the minimum requirement of the County LDRs.

Commented [AP37]: This should be removed as it is not applicable to this project

14. Any noise producing machinery or equipment (refrigeration units, air conditioning, chillers, etc.) for nonresidential buildings shall be placed on the roof and screened by a parapet wall with a similar architectural style as the building, or placed behind the buildings, screened from view from the public right of way and enhanced by landscaping and/or wall.

15. The commercial development shall provide a lighting plan at the time of development which complies with the lighting standards for Large Retail Development.

16. The development must provide detailed elevation plans and/or renderings and site plans illustrating the proposed facade and site design at the time of permitting. The site and building design must demonstrate compliance with the County's design standards for large retail development, and shall use architectural features, textures and materials consistent with the other development in the area.

17. The petitioner must meet the minimum requirements of Florida Friendly Landscaping™ publications and the Florida Yards and Neighborhoods Program for design techniques, principles, materials and plantings for required landscaping.

18. The developer shall provide a utility capacity analysis and connection to the central water and sewer systems at time of vertical construction.

19. C-2 uses shall be limited to:

- Drive-in restaurants
- Veterinarian and animal clinics or hospital service establishment
- Alcoholic beverage dispensation
- Publishing and printing service establishments
- Light construction service establishments
- Mini-warehouse
- Tire and automotive accessory establishments
- Automotive specialty establishments
- Automotive and truck rental establishments
- Automobile and truck repair establishments excluding body shops
- Automobile service establishments

Commented [AP38]: Proposed to remove this

Commented [AP39]: Proposed to remove this

20. Mini Storage shall be limited to 2-storys

21. The petitioner shall meet the minimum requirements for uses within a Class 2 Wellhead protection area in accordance with the Ground Water Protection ordinance.

22. The petitioner shall remove any barbed wire and/or electric fencing from the subject parcel(s) prior to the issuance of any Certificate of Occupancy being issued. This includes any areas designated as Buffers and Drainage Retention Areas designated as PDP (Special Use) on plats.

23. Prior to the issuance of an approved set of construction plans, the developer shall provide the Department of Public Works and The Planning Department with a contact list of any known contractors and professionals that will be working on the site as well as designating a primary contact should issues arise.

24. Construction Buffer: Article II, Section 10-28 (5) All new development (subdivision and commercial) greater than two (2) acres that abuts existing residentially zoned housing units not in previously developed or future phases of the same development must provide a construction buffer at the perimeter of the construction site boundary. It shall be a natural vegetative buffer a minimum of ten (10) feet in width, provide a minimum of eighty (80) percent opacity, and minimize - airborne erosion to existing adjacent residentially zoned housing units. If natural vegetation is not adequate or available to provide such a buffer, a fence or wall at least six (6) feet in height above grade must be installed within thirty (30) days of clearing and prior to commencement of construction. If a fence is used it must include mesh or slats to minimize airborne erosion. If a permanent fence or wall is provided it must be dominated by greenery on the side facing adjacent property at the conclusion of construction. Retention of a natural vegetative buffer is encouraged. A permanent construction buffer can be used to meet all or part of the requirements for natural vegetation preservation.

25. The petitioner shall provide a revised plan in compliance with all the performance conditions within 30 calendar days of notification in writing by the Planning Department of the final action. Failure to submit the revised plan will result in no further development permits being issued until submitted by the applicant.

Commented [AP40]: Request proposes 35-feet limitation. Can be made to look like 2-stories while allowing 3-stories internally for a more efficient and less impactful mini storage building

Commented [AP41]: Applicant would like to be provided with the map identifying the WHPA on the property before agreeing to this condition

FLETCHER FISCHER POLLACK P.L.

February 20, 2024

VIA EMAIL: KMcCorkel@co.hernando.fl.us
Mr. D. Todd Crosby, P.E.
Interim Director of Public Works, County Engineer
Hernando County Department of Public Works
1525 East Jefferson St.
Brooksville, FL 34601

RE: Administrative Variance - Hernando County Facility Design Guidelines IV-25
Parcel Key 1229218

Dear Mr. Crosby:

This firm represents the applicant for a Rezoning and Master Plan approval of the approximately 21-acre vacant parcel (Parcel Key: 1229218) located adjacent to and north of Spring Hill Drive near the Brooksville Airport to the east and US41 to the west.

Hernando County Facility Design Guidelines IV-25 (Roadway Standard Commercial Connections) allows "Two vehicular access points, not to exceed twenty-four feet in width each." If further provides "9. Additional driveways, locations or widths require a variance by the County Engineer."

This letter is a request to deviate from this requirement for the Property and to allow three (3) site access driveway connections to Spring Hill Drive as conceptually shown on the attached Master Plan, Exhibit A. Below, please find our justification for this request.

1. Location on site of the proposed variance;

Response: The location of the proposed variance is the project site's frontage along Spring Hill Drive (± 1,500 feet), and is requested to allow for three (3) site access driveway connections to Spring Hill Drive; as conceptually shown in Exhibit A (Development Concept Plan). The primary site access driveway connection to Spring Hill Drive is being requested as a full signalized access connection located (generally) in the center of the property along Spring Hill Drive. The other two (2) site access driveway connections to Spring Hill Drive are being requested as full access connections with minor street STOP control, with one connection located west of the primary site access driveway connection to Spring Hill Drive and one connection located east of the primary site access driveway connection to Spring Hill Drive.

2. Type of proposed variance;

Response: The Applicant is requesting an Administrative Design Variance from the requirements of Hernando County Facility Design Guidelines (HCFDG) # IV-25 in regard to the number of site access driveway connections (vehicular access points) per roadway frontage.

3. Design standard from which the variance is requested;

Response: The Applicant is requesting an Administrative Design Variance from the requirements of Hernando County Facility Design Guidelines (HCFDG) # IV-25, which allows for only two (2) site access driveway connections (vehicular access points) per roadway frontage, unless a variance is approved by the County Engineer. Specifically, pursuant to HCFDG # IV-25, General Note # 9, additional driveways require a variance approval from the County Engineer.

4. Intended result/ effect of each proposed variance;

Response: The intent of the proposed variance, to allow for three (3) site access driveway connections to Spring Hill Drive, is to provide for safe and efficient vehicular traffic circulation within the proposed project site and to provide for safe and efficient vehicular ingress and egress to/from Spring Hill Drive; where the "third" driveway connection is needed to effectively disperse entering & exiting project generated traffic due to project site's substantial frontage along Spring Hill Drive (± 1,500 feet). The effect of the proposed variance is to achieve a balanced overall site access configuration consisting of a centrally located signalized vehicular access point that will accommodate the majority of left turning traffic into and out of the site, while also providing one additional access point on each side of the signalized (primary) access, which will minimize circuitous travel within the project site, satisfy driver expectancy, and ease the traffic loading demands placed on the proposed traffic signal, which will minimize minor street green time allocation, thus benefiting major street throughput on Spring Hill Drive. In addition to the traffic safety and operational benefits that would result from the proposed variance, the variance also results in the provision of adequate and reasonable access, which is critically important to the viability of any development, which in turn directly benefits the surrounding area and Hernando County in general.

5. Mitigating actions, if any;

Response: No specific mitigating actions are needed in association with the proposed variance. Due to the project site's substantial frontage along Spring Hill Drive (± 1,500 feet), each site access driveway connection is able to be designed in full accordance with applicable specifications, including access connection spacing, site access turn lanes, throat depth, sight distance, etc. Further, it is noted that all three site access driveway connections will be constructed with site access left turn lanes, and the signalized site access driveway connection will also be constructed with a site access right turn lane.

6. Reason/ justification of the proposed variance;

Response: The justification for the proposed variance is demonstrated in the above responses, summarized as follows:

- **Approval of the proposed variance is needed because the project site has substantial frontage along Spring Hill Drive (± 1,500 feet) which is a unique characteristic that requires deviation from standard "boiler plate" requirements that are not necessarily intended for application to sites with significant frontage.**

- **Approval of the proposed variance would provide traffic safety & operational benefits internal to the project site, at the intersections of the site access driveway connections to Spring Hill Drive, and for the adjacent segment of Spring Hill Drive.**

- **Approval of the proposed variance would provide community benefits in regard to development viability.**

- **Approval of the variance would not adversely impact the design of the site access driveway connections, as all applicable design criteria will be met.**

7. Other supporting information, as applicable.

Response: A traffic access analysis has been prepared, dated September 20, 2023, which found that all three of the site access driveway connections to Spring Hill Drive, as planned, are anticipated to meet the applicable Hernando County transportation performance standards.

Please advise if you require additional information to process this request. Thank you.

Sincerely yours,

Anne Q. Pollack, Esq.

Enclosures

cc: Damian Brink, Land America, LLC, via email: dbrink@puglieseco.com
Michael Raysor, Raysor Transportation Consulting, via email: mdr@raysor-transportation.com

TECHNICAL MEMORANDUM

TO: LAND AMERICA, LLC
1353 PALMETTO AVENUE, SUITE 100
WINTER PARK, FLORIDA 32789

FROM: MICHAEL D. RAYSOR, P.E.
RAYSOR TRANSPORTATION CONSULTING, LLC

SUBJECT: SPRING HILL DEVELOPMENT
TRAFFIC ACCESS ANALYSIS

DATE: SEPTEMBER 20, 2023

MICHAEL DANIEL RAYSOR LICENSE No. 60919 STATE OF FLORIDA PROFESSIONAL ENGINEER

This item has been digitally signed and sealed by Michael Daniel Raysor, P.E., on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

1.0 | INTRODUCTION

This technical memorandum documents a TRAFFIC ACCESS ANALYSIS (TAA) performed to evaluate the proposed development of the **SPRING HILL DEVELOPMENT**. The TRAFFIC ACCESS ANALYSIS was performed in accordance with Hernando County Facility Design Guidelines Sheet IV-18. Refer to ***ATTACHMENT A*** for the associated methodology statement and the methodology approval document.

2.0 | PROJECT DESCRIPTION

The project site is located on the north side of SPRING HILL DRIVE, east of the SUNCOAST PARKWAY, in Hernando County, Florida; as shown in ***FIGURE 1.0***. The project site is proposed for the development of a mixed use project with three access connections to SPRING HILL DRIVE, and one cross-access connection to the residential subdivision located north and west of the subject project site; as shown in ***FIGURE 2.0***. Refer to ***TABLE 1.0*** for a tabulation of the proposed development plan. In addition, a new traffic signal is proposed on SPRING HILL DRIVE at the primary (center) project site driveway connection; which was found to be warranted as further discussed herein.

3.0 | PROJECT SITE TRIP GENERATION

The daily and peak hour trip generation of the project site was estimated using trip characteristic data in accordance with the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th edition); as shown in ***TABLE 1.0***. The distribution of project generated traffic was estimated based on area land use patterns and roadway connectivity; as shown in ***FIGURE 3.0*** and further documented in ***ATTACHMENT B***.

***FIGURE 1.0* | PROJECT SITE LOCATION**

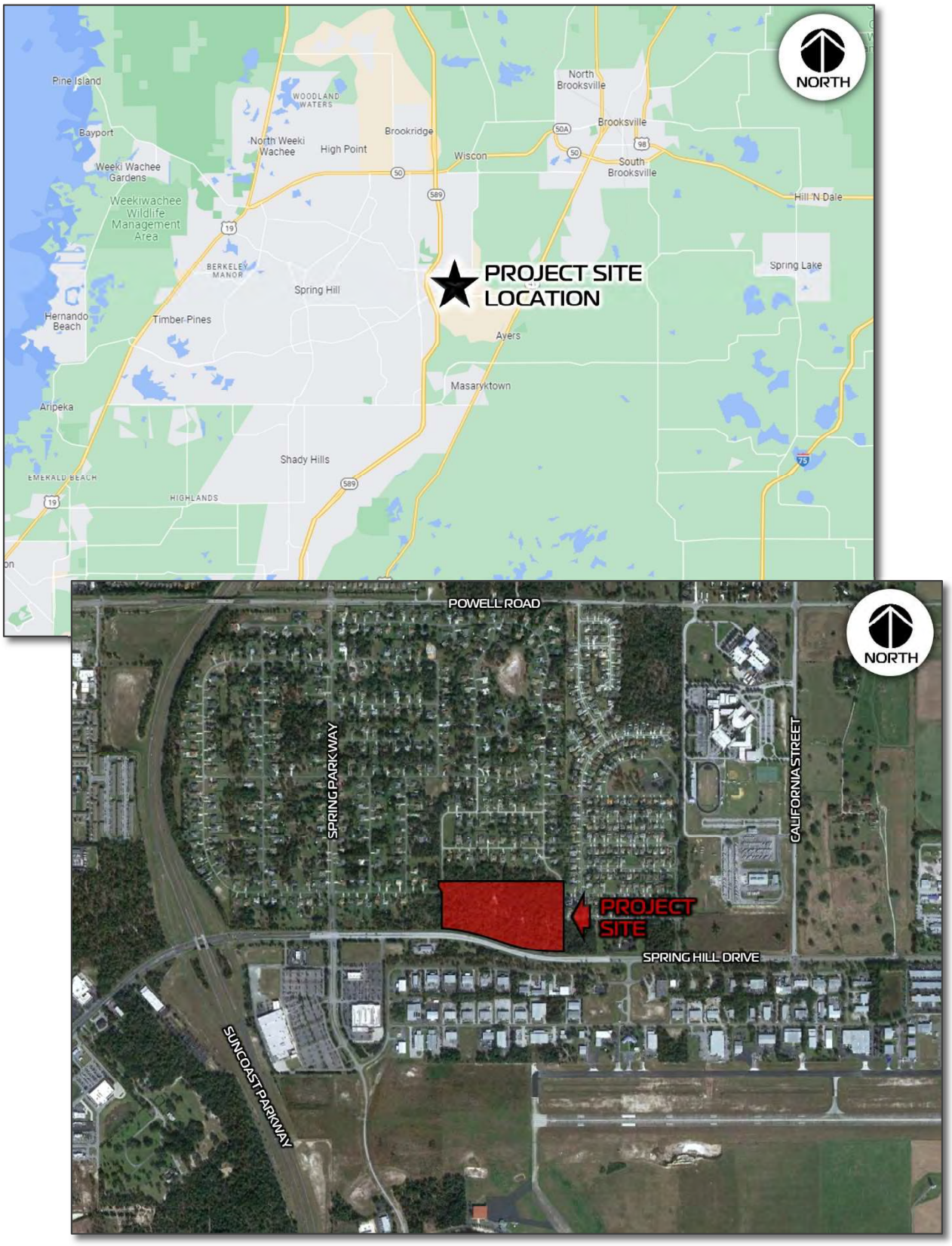


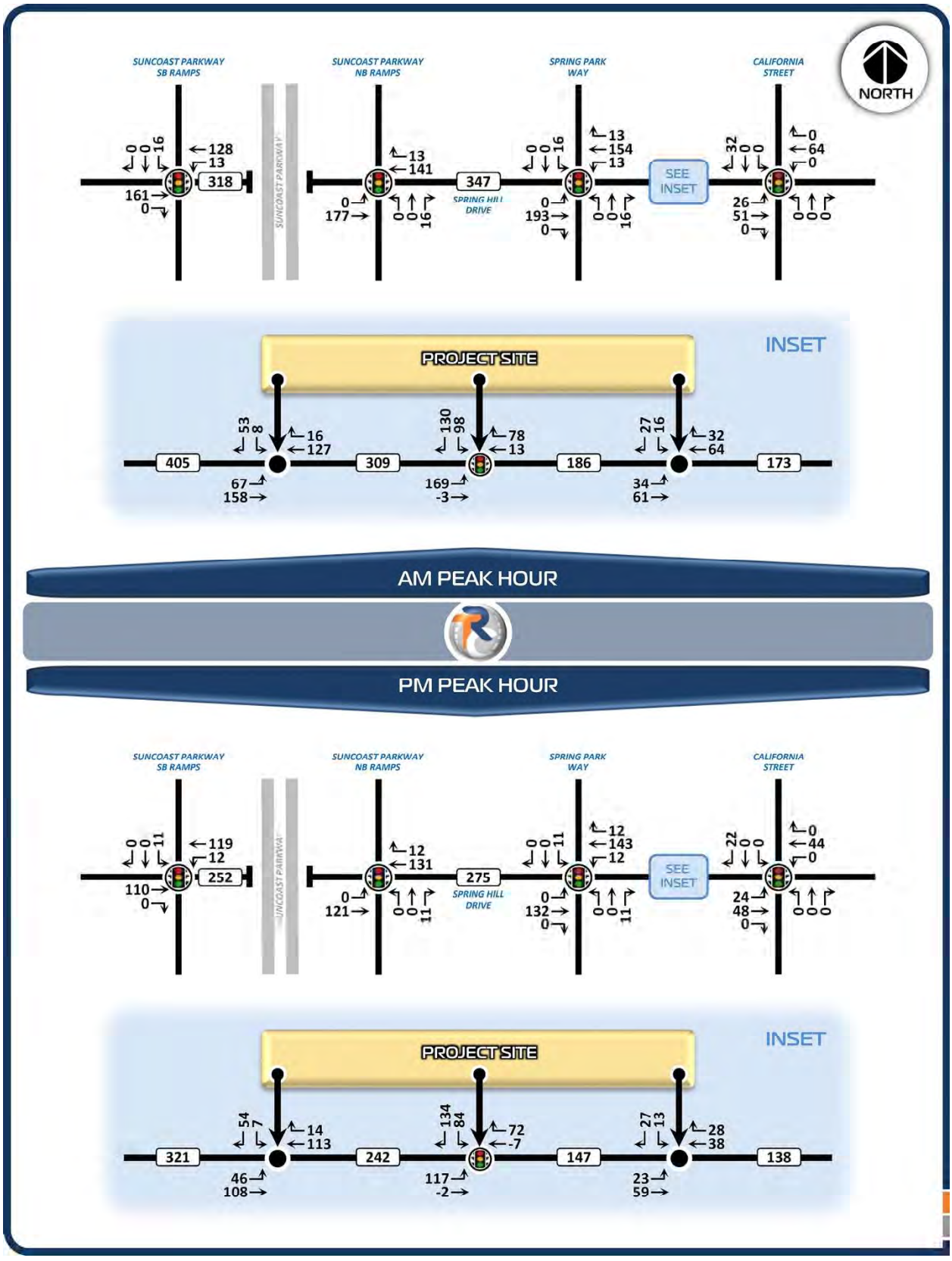
FIGURE 2.0 | **PROJECT SITE CONCEPT PLAN**

***TABLE 1.0* | PROJECT SITE TRIP GENERATION ESTIMATE**

ITE LUC	Land Use Description	Size	Weekday		AM Peak Hour				PM Peak Hour			
			Rate	Trips	Rate	Rate	Enter	Exit	Rate	Trips	Enter	Exit
110	Light Industrial	80,860 sf	T=3.76(X) +50.47	356	T=0.68(X) +3.81	59	52	7	Ln(T)=0.72* Ln(X)+0.38	35	5	30
151	Mini-Warehouse	150,000 sf	1.45	218	0.09	14	8	6	0.15	23	11	12
822	Commercial (<40 ksf)	10,000 sf	T=42.20(X) +229.68	652	Ln(T)=0.66* Ln(X)+1.84	29	17	12	Ln(T)=0.71* Ln(X)+2.72	79	40	39
934	Fast-Food w/Drive-Thru	4,000 sf	467.48	1,870	44.61	178	92	86	33.03	132	69	63
937	Coffee Shop w/Drive-Thru	3,000 sf	533.57	1,600	85.88	258	132	126	38.99	118	59	59
945	Conv. Store/ Gas Station	6,000 sf	700.43	4,204	56.52	340	170	170	54.52	328	164	164
948	Automated Car Wash	4,000 sf	142.00	568	7.81	32	16	16	14.20	58	29	29
Gross Trips			–	**9,468**	–	**910**	**487**	**423**	–	**773**	**377**	**396**
Internal Capture			–	*1,894*	–	*182*	*91*	*91*	–	*154*	*77*	*77*
Driveway Trips			–	**7,574**	–	**728**	**396**	**332**	–	**619**	**300**	**319**
Pass-By Trips [LUC 822]			*24%*	*124*	*34%*	*8*	*4*	*4*	*34%*	*20*	*10*	*10*
Pass-By Trips [LUC 934]			*40%*	*598*	*49%*	*70*	*35*	*35*	*50%*	*52*	*26*	*26*
Pass-By Trips [LUC 937]			*89%*	*1,138*	*89%*	*184*	*92*	*92*	*89%*	*84*	*42*	*42*
Pass-By Trips [LUC 945]			*68%*	*2,286*	*78%*	*212*	*106*	*106*	*78%*	*204*	*102*	*102*
Pass-By Trips [LUC 948]			*58%*	*264*	*68%*	*16*	*8*	*8*	*68%*	*32*	*16*	*16*
Total Pass-By Trips *(original)*			–	***4,410***	–	***490***	***245***	***245***	–	***392***	***196***	***196***
Total Pass-By Trips *(adjusted to 10% of background)*				***1,778***		***150***	***75***	***75***		***160***	***80***	***80***
New External Trips			–	**5,796**	–	**578**	**321**	**257**	–	**459**	**220**	**239**

DAILY TRIP RATE NOT AVAILABLE FROM ITE FOR ITE LUC 948 (ESTIMATED USING DAILY TRAFFIC VOLUMES BY HOUR)
AM PEAK HOUR TRIP RATE NOT AVAILABLE FROM ITE FOR ITE LUC 948 (ESTIMATED USING DAILY TRAFFIC VOLUMES BY HOUR)
PASS-BY TRIP RATE NOT AVAILABLE FROM ITE FOR ITE LUC 948 (ESTIMATED USING PASS-BY RATE FROM PASCO COUNTY MOBILTY FEE STUDY)

FIGURE 3.0 **| PROJECT GENERATED PEAK HOUR TRAFFIC VOLUMES (REFER TO ATTACHMENT B FOR DETAILS)**



4.0 | Study Area & Analysis Scenarios

The study area is required to consist of those roadway segments (and inclusive intersections) where project traffic consumes 4.5% of the LOS D peak hour service volume for County roads and 4.5% of the LOS C peak hour service volume for State roads. The study area screening was performed in consideration of the peak hour service volumes pursuant to the Hernando County Concurrency Management System; as documented in the methodology statement provided in ***Attachment A***. It was found that the project is anticipated to impact the area roadway network at the 4.5% threshold for the following roadway segments:

- **Spring Hill Drive** *from* Suncoast Parkway *to* California Street

The study area also consists of the following intersections along the study area roadway segments:

- Spring Hill Drive & Suncoast Parkway Western Ramp
- Spring Hill Drive & Suncoast Parkway Eastern Ramp
- Spring Hill Drive & Spring Park Way
- Spring Hill Drive & California Street
- Spring Hill Drive & Project Site Driveway (x3)

5.0 | Traffic Volumes

Current traffic volumes were obtained from traffic counts conducted proximate to the project site during AM peak period (7 am to 9 am) and PM peak period (4 pm to 6 pm) conditions, subsequently adjusted to reflect typical peak season conditions using FDOT seasonal factors. The traffic counts and adjustment factors are documented in ***Attachment C***. Background traffic volumes were calculated to reflect a 2026 analysis horizon using an annual growth rate of 1.0%; where this growth rate was calculated based on historical traffic volume trends for area roadways; as documented in ***Attachment D***. Post-development traffic volumes were calculated by adding the traffic estimated to be generated by the project site to the background traffic volumes. ***Figures 4.0 thru 6.0*** show the peak hour traffic volumes used in this study.

***FIGURE 4.0* | EXISTING PEAK HOUR TRAFFIC VOLUMES**

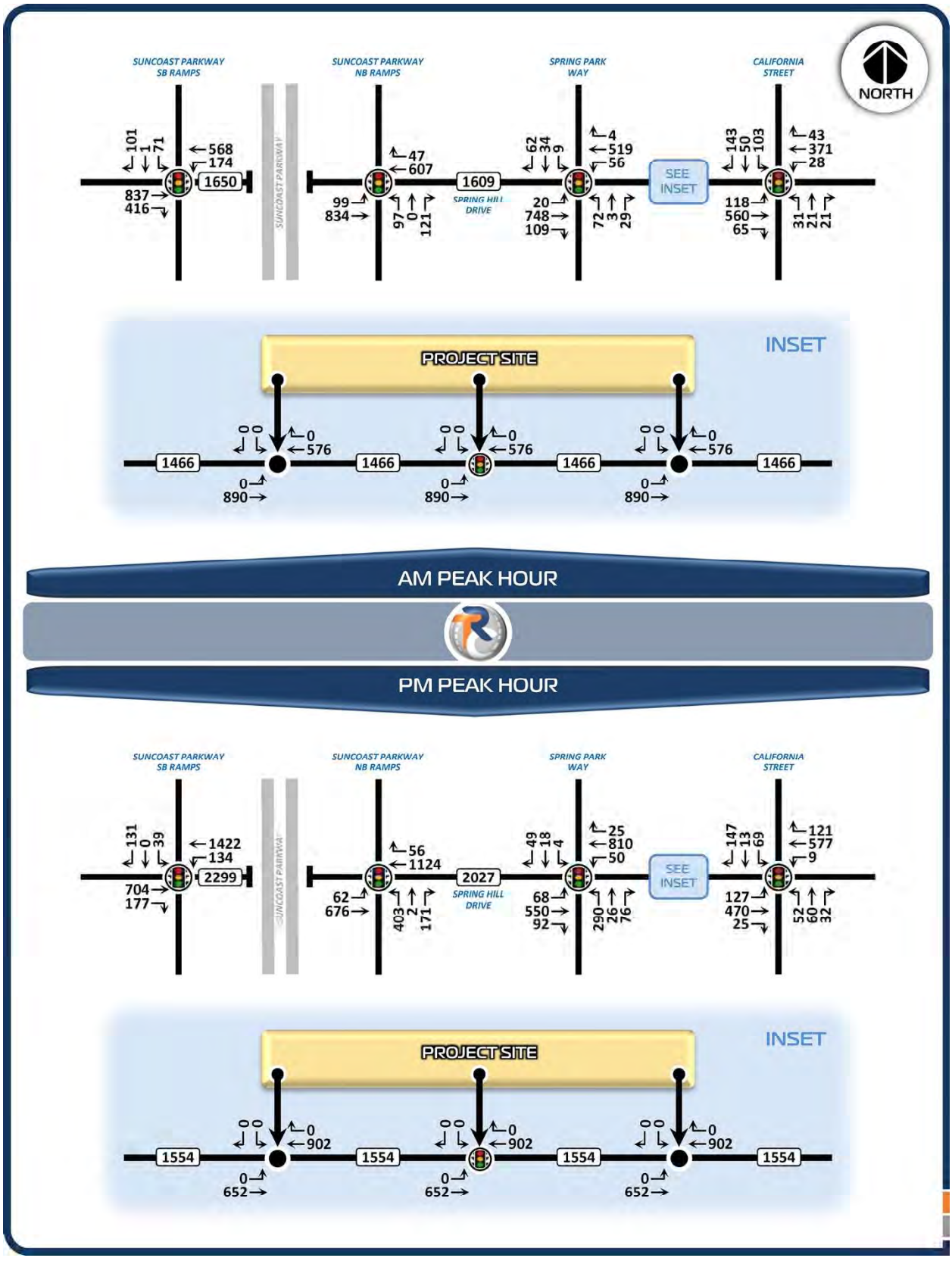


FIGURE 5.0 **| BACKGROUND PEAK HOUR TRAFFIC VOLUMES**

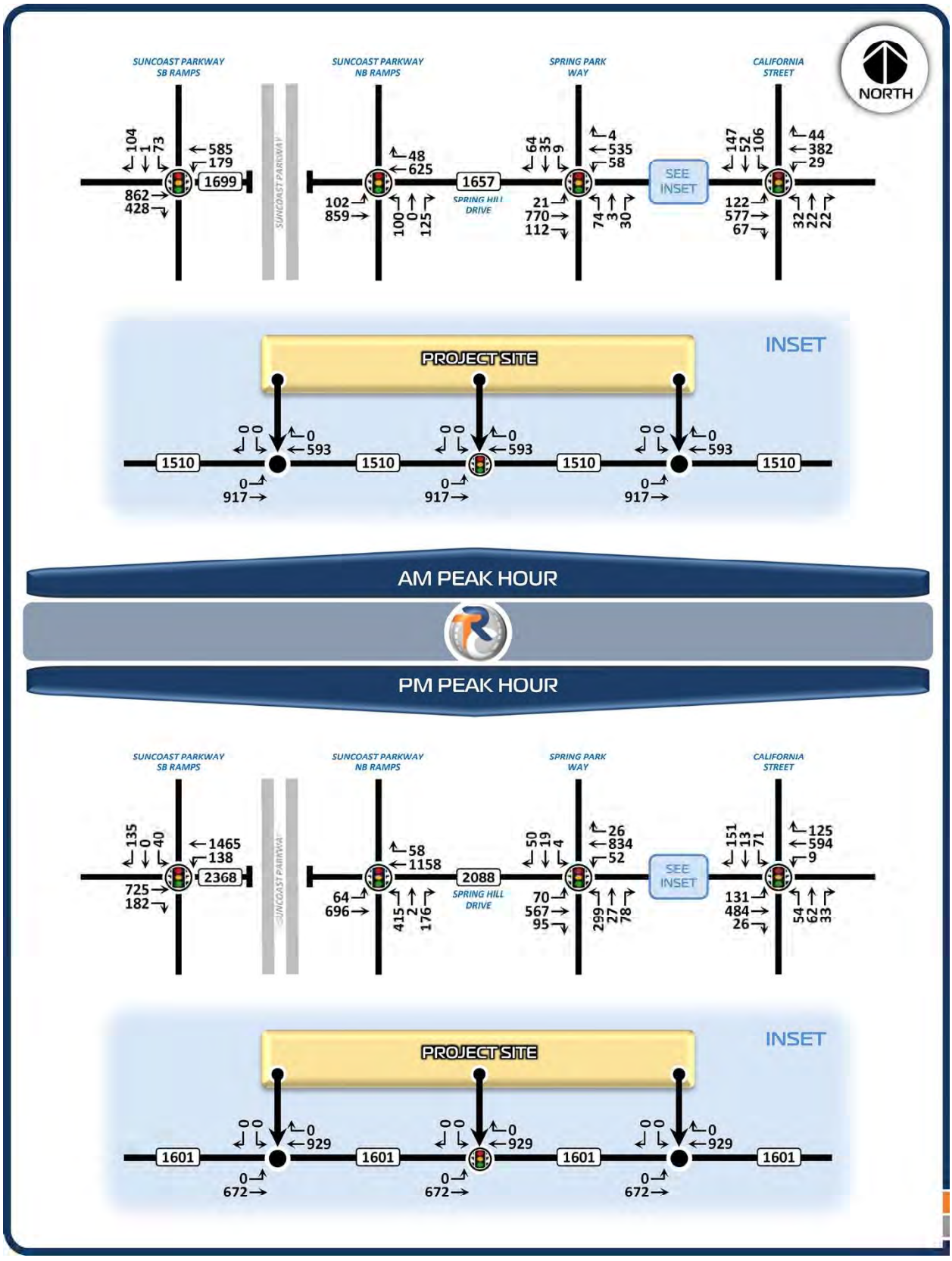
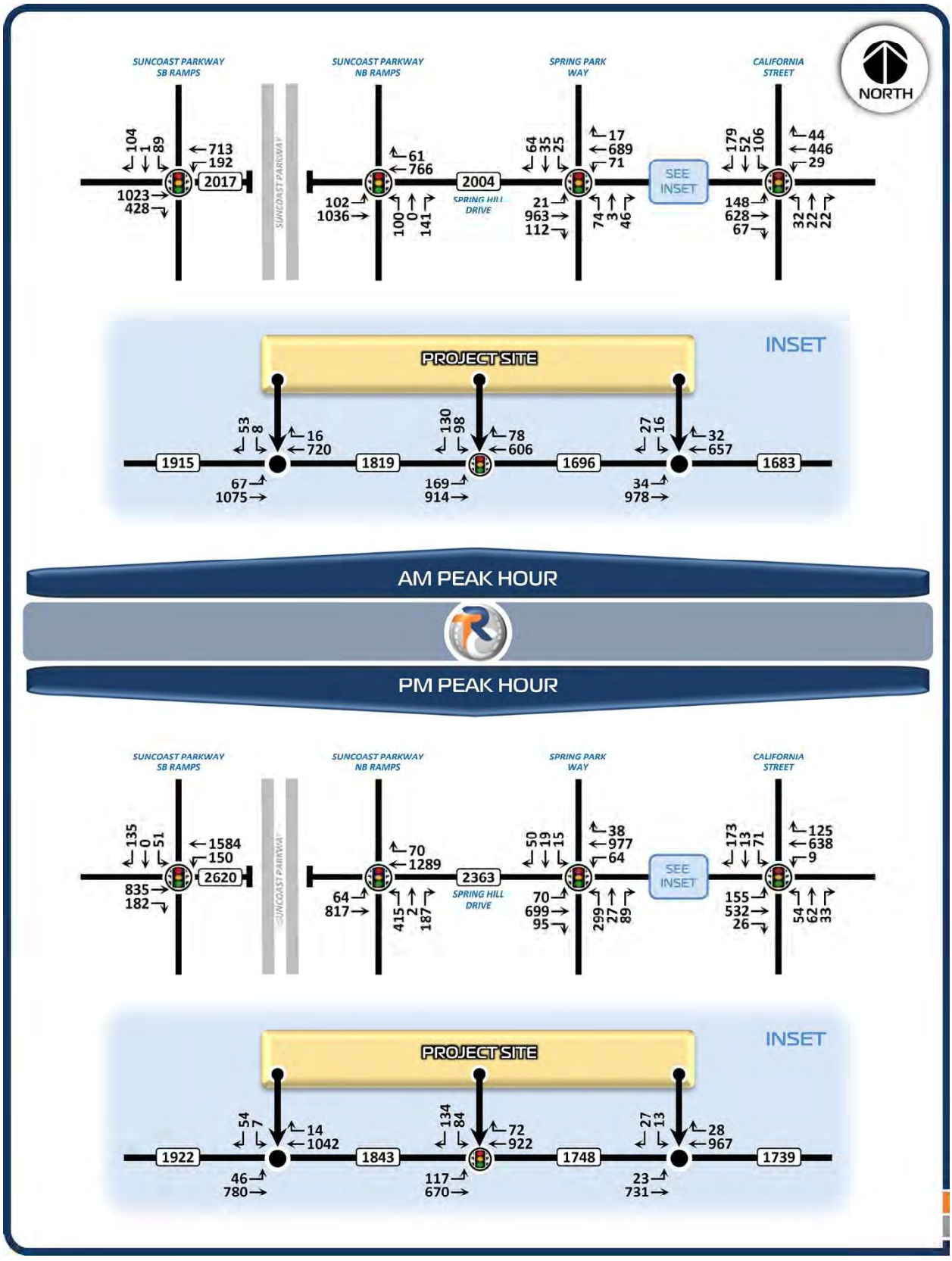


***FIGURE 6.0* | POST-DEVELOPMENT PEAK HOUR TRAFFIC VOLUMES**



6.0 | ROADWAY SEGMENT ANALYSIS

An analysis of the study roadway segments was performed for AM and PM peak hour post-development traffic conditions using generalized capacities pursuant to FDOT's *Q/LOS Handbook* (2020), as summarized in ***TABLE 2.0*** and further documented in ***ATTACHMENT E***. The results of the analysis indicate that acceptable operating conditions can be anticipated for the study roadway segments for both AM and PM peak hour conditions, with all resulting levels of service meeting the applicable Hernando County transportation performance standard.

TABLE 2.0 | **ROADWAY SEGMENT ANALYSIS SUMMARY**

Roadway Segment	Peak Hour	LOS Std	Service Volume	Post-Development Traffic		
				Volume	LOS	V/C
Spring Hill Drive *Between Suncoast Pkwy Ramps*	AM	D	3,043	2,017	C	0.66
	PM	D	3,043	2,620	C	0.86
Spring Hill Drive *Suncoast Parkway to Spring Park Way*	AM	D	3,043	2,004	C	0.66
	PM	D	3,043	2,363	C	0.78
Spring Hill Drive *Spring Park Way to Project Site (West)*	AM	D	3,043	1,915	C	0.63
	PM	D	3,043	1,922	C	0.63
Spring Hill Drive *Project Site (West) to Project Site (Center)*	AM	D	3,043	1,819	C	0.60
	PM	D	3,043	1,843	C	0.61
Spring Hill Drive *Project Site (Center) to Project Site (East)*	AM	D	3,043	1,696	C	0.56
	PM	D	3,043	1,748	C	0.57
Spring Hill Drive *Project Site (East) to California Street*	AM	D	3,043	1,683	C	0.55
	PM	D	3,043	1,739	C	0.57

7.0 | INTERSECTION ANALYSIS

An analysis of the study intersections was performed for AM and PM peak hour post-development traffic conditions using *Highway Capacity Manual* methodologies calculated by the *Synchro* software program, as summarized in ***TABLE 3.0*** and further documented in ***ATTACHMENT F***. The results of the analysis indicate that acceptable operating conditions can be anticipated for the study intersections for both AM and PM peak hour conditions, with all VOLUME-TO-CAPACITY ratios found to meet the applicable Hernando County transportation performance standard (i.e., VOLUME-TO-CAPACITY ratio less than 1.00); where these findings include the signalization of the intersection of SPRING HILL DRIVE and the primary (center) project site driveway connection, as discussed in SECTION 9.0 of this report.

TABLE 3.0 | **INTERSECTION ANALYSIS SUMMARY**

Location	Peak Hour	Metric	Eastbound			Westbound			Northbound			Southbound		
			L	T	R	L	T	R	L	T	R	L	T	R
Spring Hill Drive & Suncoast Parkway SB Ramps	AM	V/C	[1]	0.65	[2]	0.63	0.33	[1]	[1]	[1]	[1]	[2]	0.77	[2]
	PM	V/C	[1]	0.44	[2]	0.61	0.73	[1]	[1]	[1]	[1]	[2]	0.78	[2]
Spring Hill Drive & Suncoast Parkway NB Ramps	AM	V/C	0.76	0.56	[1]	[1]	0.37	[2]	0.34	[1]	0.53	[1]	[1]	[1]
	PM	V/C	0.72	0.47	[1]	[1]	0.57	[2]	0.85	[1]	0.42	[1]	[1]	[1]
Spring Hill Drive & Spring Park Way	AM	V/C	0.07	0.76	0.20	0.33	0.52	[2]	0.21	0.01	0.27	[2]	0.32	0.37
	PM	V/C	0.30	0.55	0.17	0.21	0.78	[2]	0.69	0.12	0.46	[2]	0.17	0.30
Spring Hill Drive & California Street	AM	V/C	0.76	0.48	[2]	0.52	0.42	[2]	0.12	0.16	[2]	0.33	0.17	0.69
	PM	V/C	0.76	0.36	[2]	0.48	0.65	[2]	0.18	0.32	[2]	0.26	0.05	0.65
Spring Hill Drive & Project Driveway (West)	AM	V/C	0.10	[3]	[1]	[1]	[3]	[2]	[1]	[1]	[1]	0.15	[1]	[2]
	PM	V/C	0.08	[3]	[1]	[1]	[3]	[2]	[1]	[1]	[1]	0.17	[1]	[2]
Spring Hill Drive & Project Driveway (Center)	AM	V/C	0.41	0.50	[1]	[1]	0.54	0.10	[1]	[1]	[1]	0.34	[1]	0.51
	PM	V/C	0.35	0.35	[1]	[1]	0.68	0.08	[1]	[1]	[1]	0.29	[1]	0.52
Spring Hill Drive & Project Driveway (East)	AM	V/C	0.05	[3]	[1]	[1]	[3]	[2]	[1]	[1]	[1]	0.12	[1]	[2]
	PM	V/C	0.04	[3]	[1]	[1]	[3]	[2]	[1]	[1]	[1]	0.13	[1]	[2]

[1] NOT APPLICABLE [2] SHARED LANE [3] UNOPPOSED MOVEMENT

8.0 | SITE ACCESS TURN LANE EVALUATION

A turn lane warrant evaluation was performed for the proposed project site driveway connections to SPRING HILL DRIVE, as documented in ***ATTACHMENT G***. The evaluation was performed using the turn lane warrant criteria documented within *National Cooperative Highway Research Program, Report No. 279*. The results of the analysis found that site access turn lanes are warranted as summarized below, along with design lengths based on the greater of the 95th percentile queue length from the operational analysis, or the County minimum queue storage length, plus a deceleration distance (including taper) based on FDOT'S *FDM Exhibit 212-1* (in consideration of a design speed of 60 mph, equal to the posted speed of 55 mph plus 5 mph). The turn lane lengths below each include a 50' taper.

- **PROJECT DRIVEWAY WEST**

EASTBOUND-TO-NORTHBOUND LEFT TURN LANE	**[WARRANTED @ 505']**	*100' MINIMUM QUEUE + 405' DECELERATION*
WESTBOUND-TO-NORTHBOUND RIGHT TURN LANE	**[NOT WARRANTED]**	

- **PROJECT DRIVEWAY CENTER**

EASTBOUND-TO-NORTHBOUND LEFT TURN LANE	**[WARRANTED @ 505']**	*100' MINIMUM QUEUE + 405' DECELERATION*
WESTBOUND-TO-NORTHBOUND RIGHT TURN LANE	**[WARRANTED @ 430']**	*25' MINIMUM QUEUE + 405' DECELERATION*

- **PROJECT DRIVEWAY EAST**

EASTBOUND-TO-NORTHBOUND LEFT TURN LANE	**[WARRANTED @ 505']**	*100' MINIMUM QUEUE + 405' DECELERATION*
WESTBOUND-TO-NORTHBOUND RIGHT TURN LANE	**[NOT WARRANTED]**	

In addition to the above referenced turn lanes on SPRING HILL DRIVE, separate left and right turn lanes are required to be provided for the CENTER PROJECT SITE DRIVEWAY on its southbound approach to SPRING HILL DRIVE; due to the signalization of that intersection.

9.0 | TRAFFIC SIGNAL WARRANT EVALUATION

Daily approach traffic volumes by hour were compiled for both SPRING HILL DRIVE and the CENTER PROJECT SITE DRIVEWAY. Daily approach traffic volumes by hour for the adjacent segment of SPRING HILL DRIVE were estimated using hourly percentages of daily traffic volumes from FDOT count station # 08-2017 (located on SPRING HILL DRIVE proximate to the project site) applied to the 2022 AADT for SPRING HILL DRIVE (refer to ***ATTACHMENT H*** for details).

Daily approach traffic volumes for the CENTER PROJECT SITE DRIVEWAY were estimated based on the daily project site trip generation estimate split into hourly volumes based on ITE hourly distribution data, and then further adjusted by direction (i.e., east-west distribution) using the same procedures as applied to the peak hour volumes, as discussed in SECTION 3.0 of this report (refer to ***ATTACHMENT H***) for the resulting traffic volumes.

The following traffic signal warrants were evaluated, using the above-referenced traffic volumes, for the intersection of SPRING HILL DRIVE & CENTER PROJECT SITE DRIVEWAY, as specified in the *Manual on Uniform Traffic Control Devices* (MUTCD, Federal Highway Administration, 2012); noting that in consideration of the 55 mph posted speed limit for SPRING HILL DRIVE, the MUTCD "70% criteria" was applied.

- WARRANT NO. 1A: Minimum Vehicular Volume
- WARRANT NO. 1B: Interruption of Continuous Traffic

The results of the signal warrant evaluation analysis found that a traffic signal is warranted at the intersection of SPRING HILL DRIVE & CENTER PROJECT SITE DRIVEWAY in association with the development of the **SPRING HILL DEVELOPMENT**.

WARRANT NO. 1A: MINIMUM VEHICULAR VOLUME

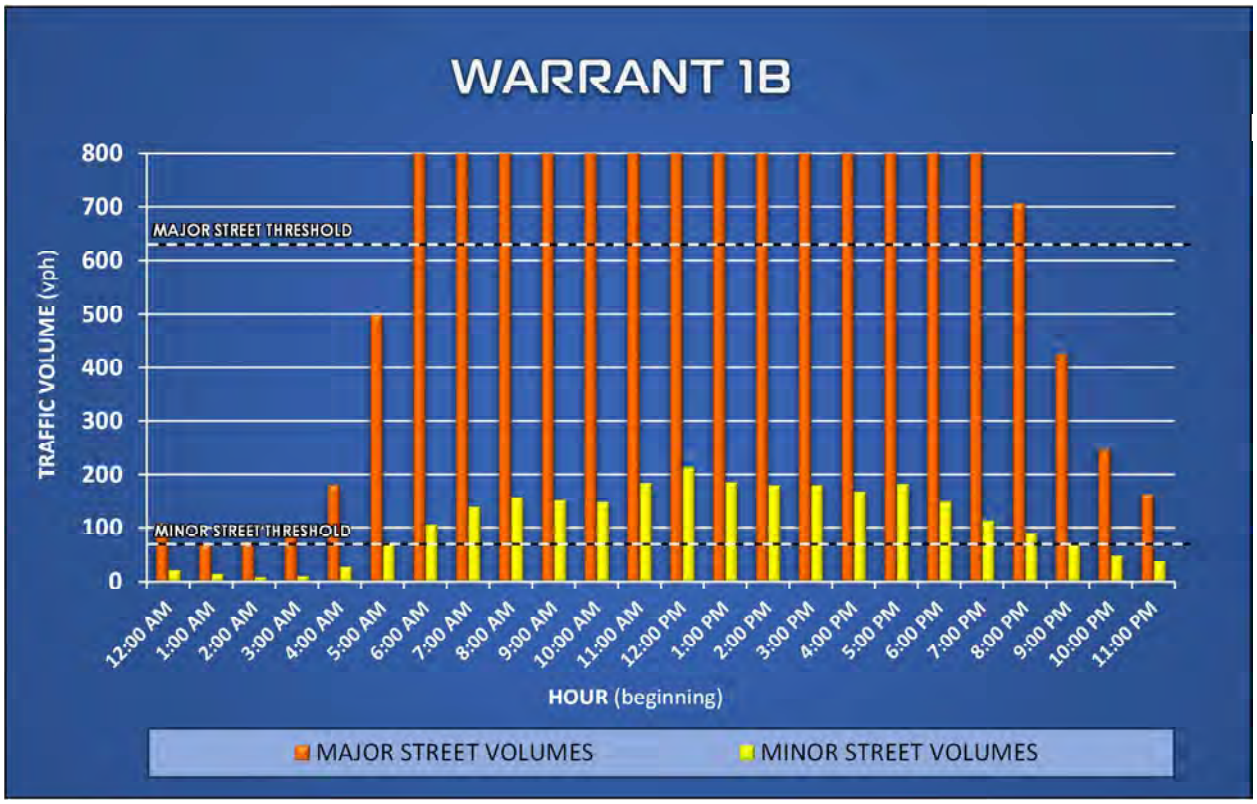
This warrant is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic signal. The minimum requirements for this warrant, as applicable to the subject intersection, are (a) 420 vph for the sum of both approaches on the major street (multiple approach lanes), and (b) 140 vph on the higher volume minor street approach (multiple approach lanes). This warrant is satisfied when, for each of any eight hours of an average day, the required traffic volumes exist on the major street and the higher volume minor street approach or movement. As shown in ***FIGURE 7.0***, WARRANT NO. 1A was found to be **MET**, with 11 hours meeting the warrant criteria, exceeding the 8 hour requirement; thus signalization of the subject intersection is warranted.

FIGURE 7.0 **| MUTCD WARRANT NO. 1A**

WARRANT NO. 1B: INTERRUPTION OF CONTINUOUS TRAFFIC

This warrant is intended for application at locations where the traffic volume on a major street is so heavy that traffic on a minor intersecting street suffers excessive delay or conflict in entering or crossing the major street. The minimum requirements for this warrant, as applicable to the subject intersection, are (a) 630 vph for the sum of both approaches on the major street (multiple approach lanes), and (b) 70 vph on the higher volume minor street approach (multiple approach lanes). This warrant is satisfied when, for each of any eight hours of an average day, the required traffic volumes exist on the major street and the higher volume minor street approach or movement. As shown in ***FIGURE 8.0***, WARRANT NO. 1B was found to be **MET**, with 15 hours meeting the warrant criteria, exceeding the 8 hour requirement; thus signalization of the subject intersection is warranted.

FIGURE 8.0 **| MUTCD WARRANT NO. 1B**



10.0 | CONCLUSION

Based on the data, analysis and findings contained within this TRAFFIC ACCESS ANALYSIS (TAA) prepared in association with the proposed development of the **SPRING HILL DEVELOPMENT**, the following is concluded:

- **THE STUDY ROADWAY SEGMENTS ARE ANTICIPATED TO OPERATE ACCEPTABLY FOR POST-DEVELOPMENT PEAK HOUR TRAFFIC CONDITIONS, WITHOUT TRANSPORTATION IMPROVEMENTS.**

- **THE STUDY INTERSECTIONS ARE ANTICIPATED TO OPERATE ACCEPTABLY FOR POST-DEVELOPMENT PEAK HOUR TRAFFIC CONDITIONS, WITHOUT TRANSPORTATION IMPROVEMENTS; EXCEPT FOR THE SIGNALIZATION OF THE INTERSECTION OF SPRING HILL DRIVE & THE CENTER PROJECT DRIVEWAY.**

- **SIGNALIZATION OF THE INTERSECTION OF SPRING HILL DRIVE & THE CENTER PROJECT DRIVEWAY WAS FOUND TO BE WARRANTED BASED ON MUTCD TRAFFIC SIGNAL WARRANT CRITERIA.**

- **SEVERAL SITE ACCESS TURN LANES WERE FOUND TO BE WARRANTED ON SPRING HILL DRIVE AT THE PROJECT SITE DRIVEWAY CONNECTIONS; AS DETAILED HEREIN.**

SPRING HILL DEVELOPMENT

TRAFFIC ACCESS ANALYSIS

ATTACHMENT A

METHODOLOGY STATEMENT
& APPROVAL DOCUMENT

RAYSOR Transportation Consulting

TRAFFIC ENGINEERING
DEVELOPMENT SUPPORT

June 6, 2023

Kandi McCorkel
Hernando County Engineering
1525 East Jefferson Street
Brooksville, Florida 34601

SUBJECT: **SPRING HILL DEVELOPMENT**
Traffic Access Analysis Methodology Statement

Dear Ms. McCorkel,

This letter documents our proposed methodology for undertaking a TRAFFIC ACCESS ANALYSIS (TAA) to evaluate the proposed **SPRING HILL DEVELOPMENT** project. This methodology was prepared in general accordance with the Hernando County Facility Design Guidelines Sheet IV-18, as follows:

PROJECT DESCRIPTION

The subject project site is located on the north side of Spring Hill Drive, approximately ¼ mile east of Spring Park Way, in Hernando County, Florida; as shown in ***ATTACHMENT A***. The project site is proposed for the development of (a) 80,860 square feet of industrial land use, (b) 150,000 square feet of self-storage, and (c) 6 commercial outparcels. Access to the site is proposed via three access connections to Spring Hill Drive, where the type of connection (full access, restricted access, etc.) will be determined based on the results of the analysis. In addition, the County Engineer has requested a cross access connection to Copeland Way or Alba Way to provide direct access to the adjacent residential neighborhood. Refer to ***ATTACHMENT B*** for the project site preliminary concept plan.

TRIP GENERATION & DISTRIBUTION

The daily and peak hour trip generation of the project site was estimated using trip characteristic data in accordance with the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th edition); as documented in ***ATTACHMENT C***. The distribution of project generated traffic was estimated based on area development patterns and the surrounding roadway network, as shown in ***ATTACHMENT D***.

STUDY AREA

The study area is required to consist of those regulated roadway segments (and inclusive intersections) where project generated traffic consumes 4.5% of the LOS D peak hour service volume for County roads and 4.5% of the LOS C peak hour service volume for State roads, as documented in ***ATTACHMENT E,*** and the directly accessed roadway segments. The study area screening was performed in consideration of generalized capacities pursuant to the County's concurrency monitoring spreadsheet. It was found that the project is anticipated to impact the area roadway network at the 4.5% threshold for the following roadway segments:

- **Spring Hill Drive** *from* Suncoast Parkway *to* California Street

The study area will also consist of the following intersections along the study area roadway segments:

- Spring Hill Drive & Suncoast Parkway Western Ramp
- Spring Hill Drive & Suncoast Parkway Eastern Ramp
- Spring Hill Drive & Spring Park Way
- Spring Hill Drive & California Street
- Spring Hill Drive & Project Site Driveway (x3)

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ANALYSIS SCENARIOS
The traffic analysis will evaluate post-development total traffic conditions for AM and PM peak hour periods.

EXISTING TRAFFIC
Traffic counts will be conducted within the study area during AM & PM peak periods (7 am to 9 am & 4 pm to 6 pm), and adjusted to reflect peak season conditions using FDOT's latest available seasonal adjustment factors. In addition, historical traffic counts in the area will be reviewed to determine if further adjustments are needed to account for summer conditions (i.e., when school is not in session).

BACKGROUND TRAFFIC
Background traffic volumes will be calculated to reflect a 2026 analysis-horizon year, using an annual growth rate of 1.0%, where this growth rate was calculated based on historical traffic volume trends for area roadways; as documented in ***ATTACHMENT F***.

TOTAL TRAFFIC
Post-development (total) traffic volumes will be calculated by adding project generated traffic to the background traffic volumes.

ANALYSIS PROCEDURES
The operational analysis of the study intersections will be undertaken using *Highway Capacity Manual* procedures calculated using *Synchro* analysis software. The transportation performance standard shall be individual traffic movements with v/c ratios no greater than 1.00. The analysis of roadway segments will initially be undertaken in consideration of generalized capacities pursuant to FDOT's *Q/LOS Handbook* (2020), with detailed analyses performed if necessary.

TURN LANE ANALYSIS
An evaluation of turn lane warrants and lengths will be undertaken for the project site driveway connections. The need for site access turn lanes will be evaluated using the criteria documented in *National Cooperative Highway Research Program Report No. 279*.

MITIGATION
If deficiencies are identified, mitigation for project impacts will be identified in coordination with County staff, in consideration of Florida State Statute (as limited thereunder).

DOCUMENTATION
A report documenting the traffic study will be prepared for review and approval by the County. The report will be signed and sealed by a professional engineer registered in the State of Florida.

If you should have any questions or comments regarding the materials discussed herein, please feel free to contact me.

Sincerely,

RAYSOR Transportation Consulting, LLC

Michael D. Raysor, P.E.
President

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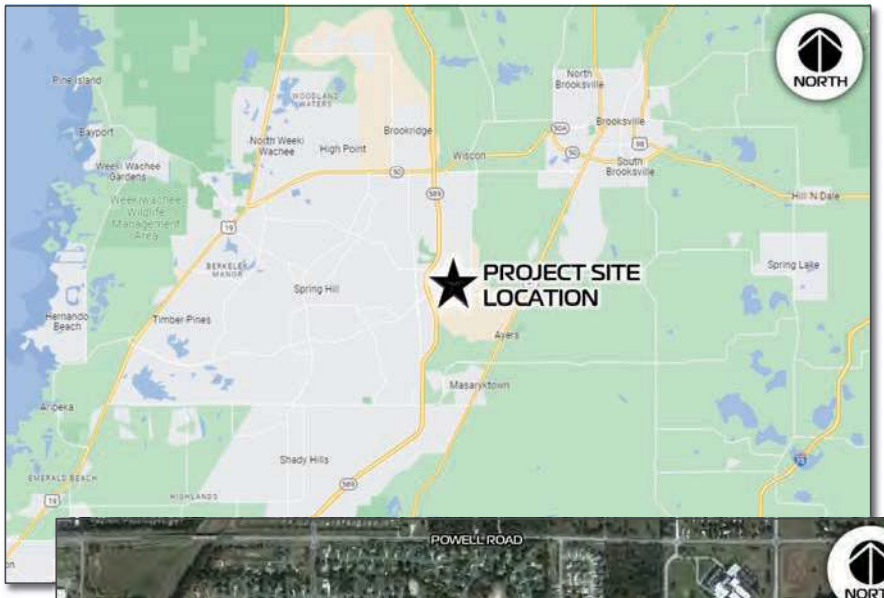
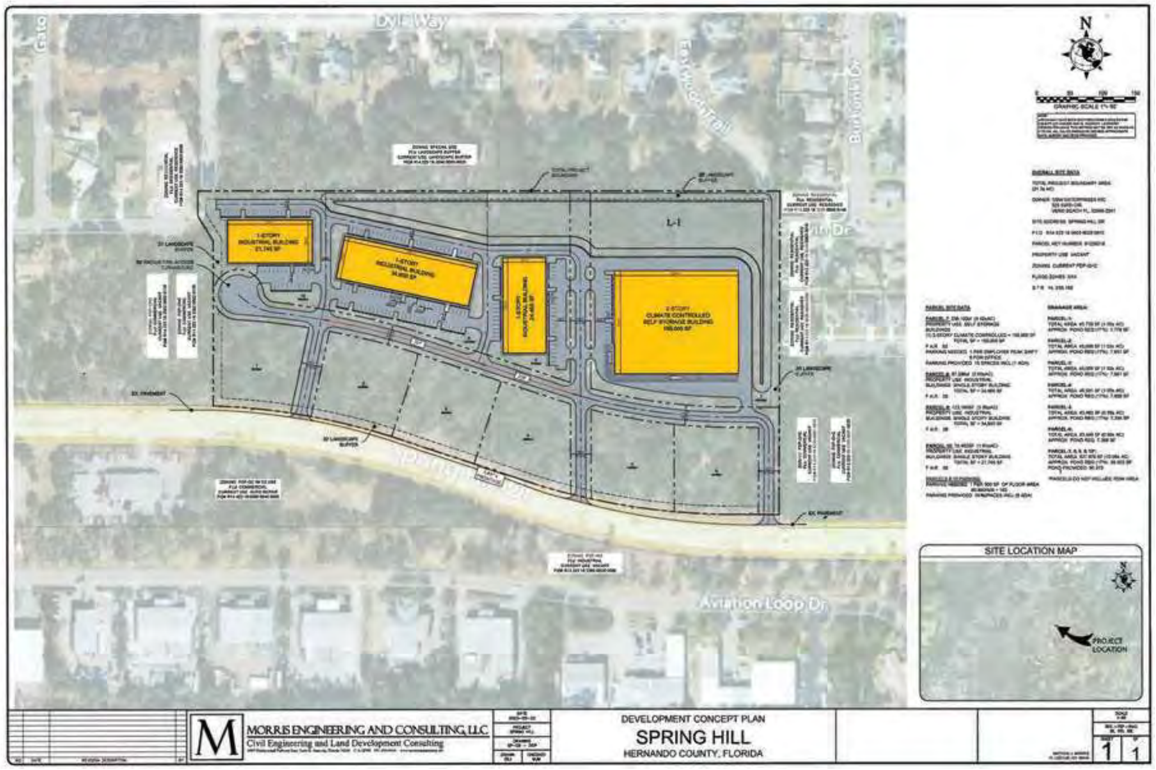

NORTH
PROJECT SITE LOCATION
Pine Island
Weeki Wachee Gardens
Weeki Wachee Wildlife Management Area
North Weeki Wachee
High Point
Brookridge
Wiscon
North Brooksville
Brooksville
South Brooksville
Hill N Dale
Spring Lake
Spring Hill
Timber Pines
Hernando Beach
Ayers
Masaryktown
Shady Hills


POWELL ROAD
NORTH
SPRING PARK WAY
CALIFORNIA STREET
PROJECT SITE
SPRING HILL DRIVE
SUNCOAST PARKWAY

ATTACHMENT B

RAYSOR Transportation Consulting



SPRING HILL DEVELOPMENT

Project Site Concept Plan

ATTACHMENT C

RAYSOR Transportation Consulting

SPRING HILL DEVELOPMENT
Project Site Trip Generation Estimate

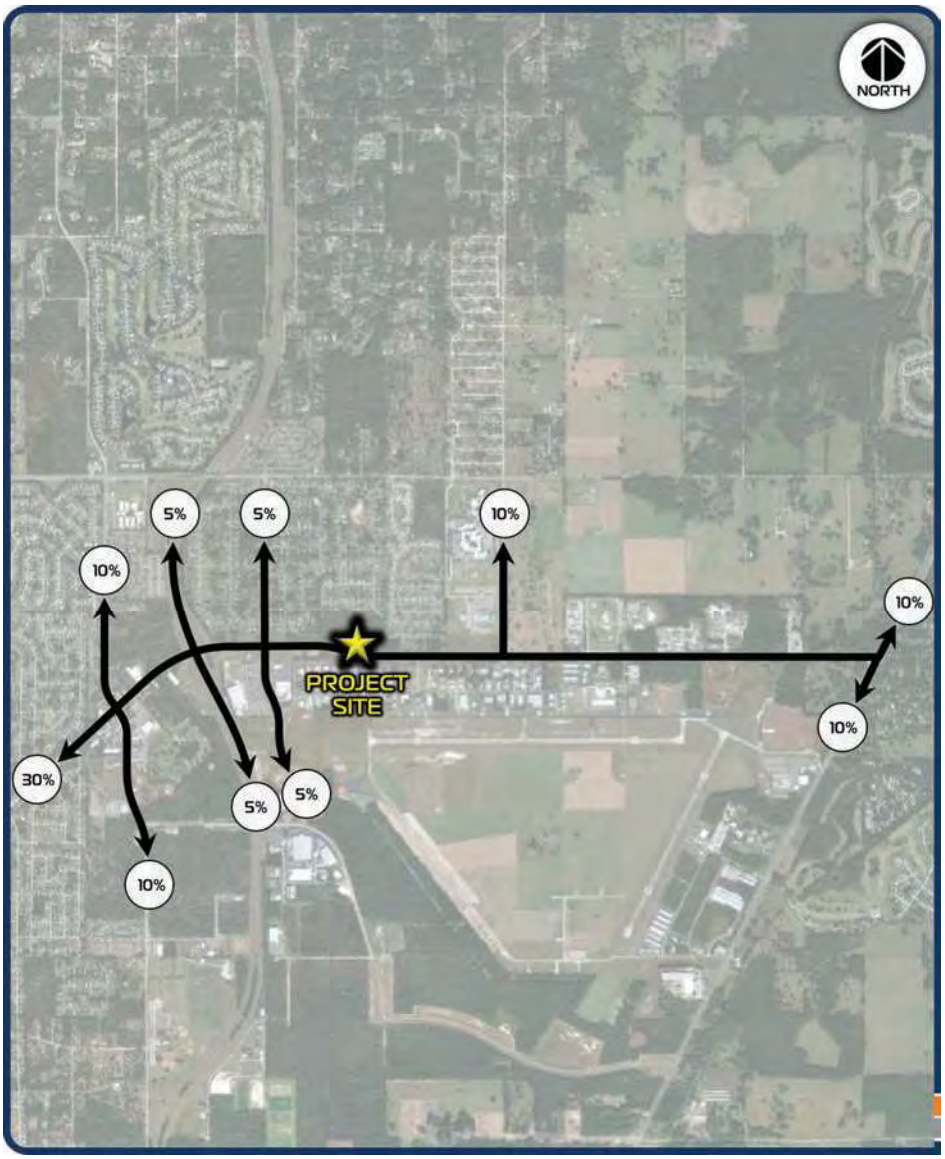
ITE LUC	Land Use Description	Size	Weekday		AM Peak Hour				PM Peak Hour			
			Rate	Trips	Rate	Rate	Enter	Exit	Rate	Trips	Enter	Exit
110	Light Industrial	80,860 sf	T=3.76(X) +50.47	356	T=0.68(X) +3.81	59	52	7	Ln(T)=0.72* Ln(X)+0.38	35	5	30
151	Mini-Warehouse	150,000 sf	1.45	218	0.09	14	8	6	0.15	23	11	12
822	Commercial (<40 ksf)	10,000 sf	T=42.20(X) +229.68	652	Ln(T)=0.66* Ln(X)+1.84	29	17	12	Ln(T)=0.71* Ln(X)+2.72	79	40	39
848	Tire Store	6,000 sf	27.69	166	2.61	16	10	6	3.75	23	10	13
912	Drive-In Bank	4,000 sf	100.35	401	9.95	40	23	17	21.01	84	42	42
934	Fast-Food w/Drive-Thru	4,000 sf	467.48	1,870	44.61	178	92	86	33.03	132	69	63
937	Coffee Shop w/Drive-Thru	3,000 sf	533.57	1,601	85.88	258	132	126	38.99	118	59	59
948	Automated Car Wash	4,000 sf	142.00	568	7.81	32	16	16	14.20	58	29	29
Gross Trips			–	**5,832**	–	**626**	**350**	**276**	–	**552**	**265**	**287**
Internal Capture			–	*1,166*	–	*124*	*62*	*62*	–	*110*	*55*	*55*
Driveway Trips			–	**4,666**	–	**502**	**288**	**214**	–	**442**	**210**	**232**
Pass-By Trips [LUC 822]			*24%*	*156*	*34%*	*10*	*5*	*5*	*34%*	*26*	*13*	*13*
Pass-By Trips [LUC 848]			*18%*	*30*	*28%*	*4*	*2*	*2*	*28%*	*6*	*3*	*3*
Pass-By Trips [LUC 912]			*25%*	*468*	*29%*	*52*	*26*	*26*	*35%*	*46*	*23*	*23*
Pass-By Trips [LUC 934]			*40%*	*640*	*49%*	*126*	*63*	*63*	*50%*	*58*	*29*	*29*
Pass-By Trips [LUC 937]			*89%*	*1,424*	*89%*	*230*	*115*	*115*	*89%*	*104*	*52*	*52*
Pass-By Trips [LUC 948]			*58%*	*328*	*68%*	*22*	*11*	*11*	*68%*	*38*	*19*	*19*
Total Pass-By Trips *(original)*			–	***3,046***	–	***444***	***222***	***222***	–	***278***	***139***	***139***
Total Pass-By Trips *(adjusted to 10% of background)*				***2,222***		***200***	***100***	***100***		***200***	***100***	***100***
New External Trips			–	**2,444**	–	**302**	**188**	**114**	–	**242**	**110**	**132**

DAILY TRIP RATE NOT AVAILABLE FROM ITE FOR ITE LUC 948 (ESTIMATED USING DAILY TRAFFIC VOLUMES BY HOUR)
AM PEAK HOUR TRIP RATE NOT AVAILABLE FROM ITE FOR ITE LUC 948 (ESTIMATED USING DAILY TRAFFIC VOLUMES BY HOUR)
PASS-BY TRIP RATE NOT AVAILABLE FROM ITE FOR ITE LUC 948 (ESTIMATED USING PASS-BY RATE FROM PASCO COUNTY MOBILITY FEE STUDY)

ATTACHMENT D

RAYSOR Transportation Consulting

SPRING HILL DEVELOPMENT
Project Traffic Distribution



ATTACHMENT E

RAYSOR Transportation Consulting

SPRING HILL DEVELOPMENT
Study Area Screening

Segment ID	Roadway Segment	Peak Hour Two Way Service Volume	Project Site Traffic		Percent Capacity Consumed	>4.5% Impact
			Distribution	Trips		
10020	**Anderson Snow Road** *Industrial Loop to Spring Hill Drive*	1,440	10.0%	25	1.7%	No
10030	**Barclay Avenue** *Spring Hill Drive to Elgin Boulevard*	3,204	10.0%	25	0.8%	No
5435.2	**Spring Hill Drive** *Coronado Drive to Barclay Avenue*	3,204	30.0%	73	2.3%	No
5440.5	**Spring Hill Drive** *Barclay Avenue to Suncoast Parkway*	2,952	50.0%	121	4.1%	No
5440.6	**Spring Hill Drive** *Suncoast Parkway (between ramps)*	2,952	55.0%	134	4.5%	Yes
5440.4	**Spring Hill Drive** *Suncoast Parkway to Spring Park Way*	2,952	60.0%	146	4.9%	Yes
5443-A	**Spring Hill Drive** *Spring Park Way to Project Site*	2,952	70.0%	170	5.8%	Yes
5443-B	**Spring Hill Drive** *Project Site to California Street*	2,952	30.0%	73	2.5%	No
5445	**Spring Hill Drive** *California Street to Broad Street*	2,952	20.0%	49	1.7%	No
10310	**California Street** *Spring Hill Drive to Powell Road*	1,332	10.0%	25	1.9%	No
10080	**Broad Street (US41)** *Spring Hill Drive to Powell Road*	3,110	10.0%	25	0.8%	No
10070.2	**Broad Street (US41)** *Airport Blvd to Spring Hill Drive*	3,110	10.0%	25	0.8%	No
11260	**Suncoast Parkway** *County Line Road to Spring Hill Drive*	6,770	5.0%	13	0.2%	No
11280	**Suncoast Parkway** *Spring Hill Drive to SR-50*	5,500	5.0%	13	0.2%	No
--	**Spring Park Way** *Spring Hill Drive Powell Road*	1,332	5.0%	13	1.0%	No
--	**Aerial Way** *Airport Blvd to Corporate Boulevard*	1,332	5.0%	13	1.0%	No

Spring Hil Development

Growth Rate Calculations

Year	Location A	Location B	Location C	Location D	Total	Linear Trend
2022	19,900	-	-	-	19,900	20,187
2021	19,300	-	-	-	19,300	20,001
2020	18,900	-	-	-	18,900	19,815
2019	21,000	-	-	-	21,000	19,629
2018	20,500	-	-	-	20,500	19,443
2017	20,000	-	-	-	20,000	19,257
2016	19,000	-	-	-	19,000	19,071
2015	18,300	-	-	-	18,300	18,885
2014	18,200	-	-	-	18,200	18,699
2013	18,400	-	-	-	18,400	18,513
					10 Year Annual Growth Rate >>>	1.0%

SOURCE
Location A: FDOT Count Station 08-2017 (Spring Hill Drive, east of Suncoast Parkway)
Location B: N/A
Location C: N/A
Location D: N/A

COMPOSITE AADT VOLUMES

25,000
20,000
15,000
10,000
5,000
0

2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

Traffic Volume
Trend

DEPARTMENT OF PUBLIC WORKS
ENGINEERING • FACILITIES • REAL PROPERTY • ROADS/BRIDGES • STORMWATER • TRAFFIC
1525 EAST JEFFERSON STREET • BROOKSVILLE, FLORIDA 34601
P 352.754.4060 • F 352.754.4423 • W www.HernandoCounty.us

June 8, 2023

Mr. Michael D. Raysor, P.E.
RAYSOR Transportation Consulting
19046 Bruce B. Downs Blvd., Suite 308
Tampa, FL 33647

SUBJECT: Spring Hill Development
Traffic Access Analysis Methodology Statement

Dear Mr. Raysor:

Staff has reviewed your Methodology Statement (dated June 6, 2023) for the Spring Hill Development project. The methodology statement is in the format shown in the Hernando County guidelines. Staff accepts the methodology as presented; however, this Methodology does not approve the third driveway on Spring Hill Drive. That can be addressed when the Master Plan for this project is presented to the Board of County Commissioners.

These comments are not intended to be inclusive of any or all errors or omissions within the subject analysis. It remains the responsibility of the consulting engineer to thoroughly check the analysis and make necessary corrections.

Please provide the Synchro files with the Analysis submittal.

Please contact me with any questions or comments.

Sincerely,

D. Todd Crosby, P.E.
Interim Public Works Director / County Engineer

EL:DTC

Attachment: Hernando County Facility Design Guidelines Sheet IV-18.

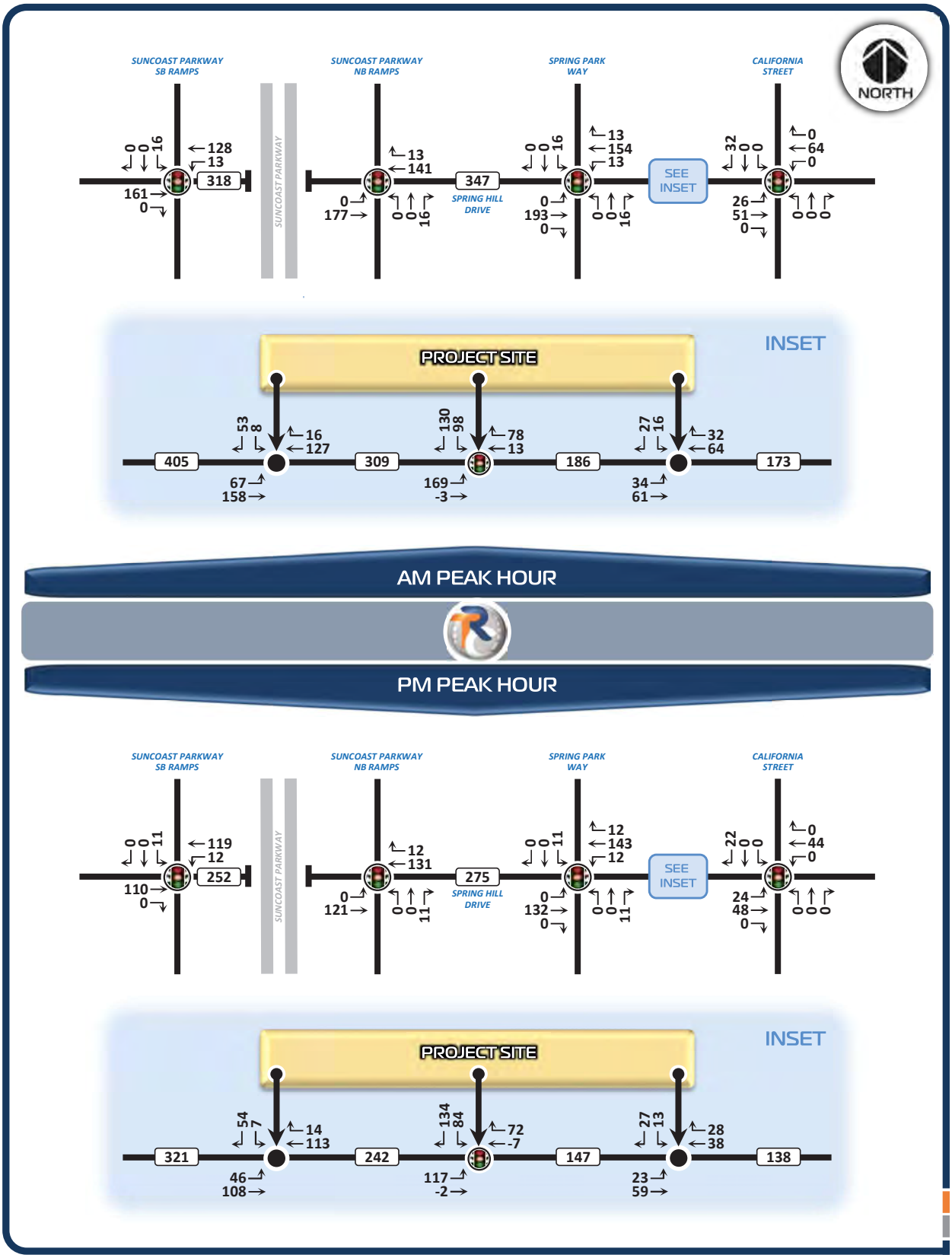
cc: Laura A. Borgesi P.E., Traffic Engineer
Kandi McCorkel, Engineering Development Coordinator
File

SPRING HILL DEVELOPMENT

TRAFFIC ACCESS ANALYSIS

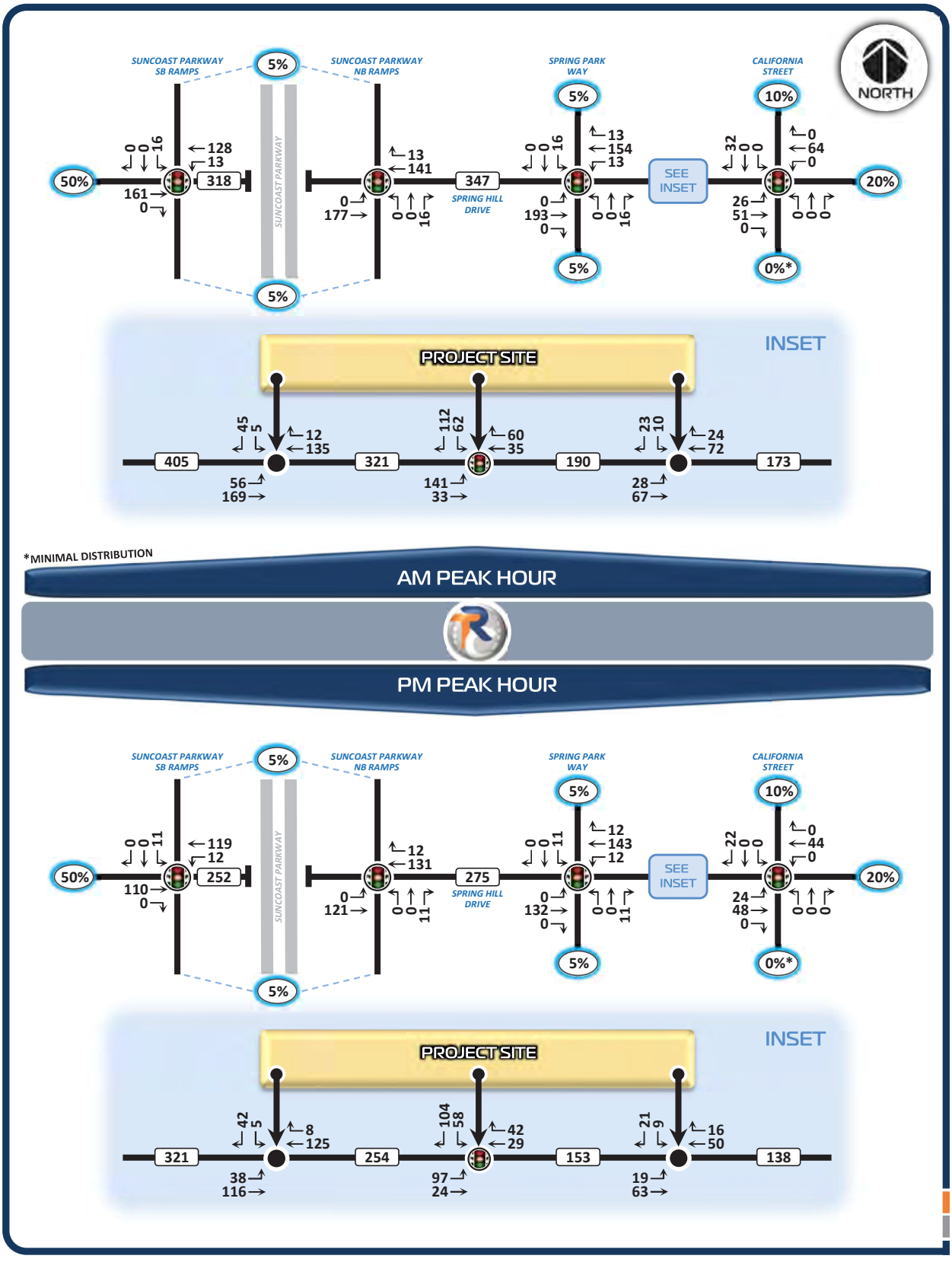
ATTACHMENT B

PROJECT TRAFFIC DETAILS



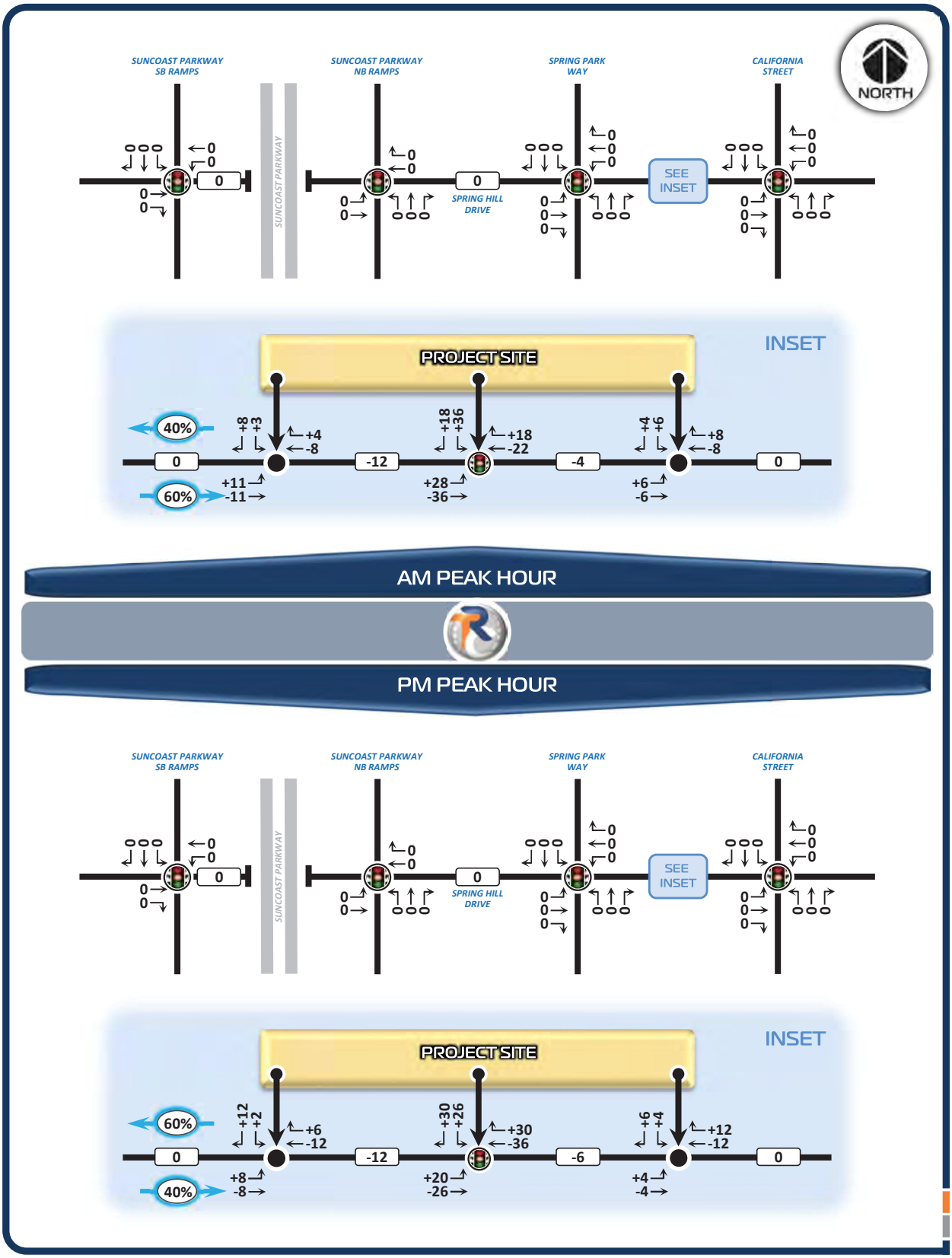
SPRING HILL DEVELOPMENT

PROJECT GENERATED TRAFFIC VOLUMES (TOTAL TRIPS: NEW EXTERNAL & PASS-BY)



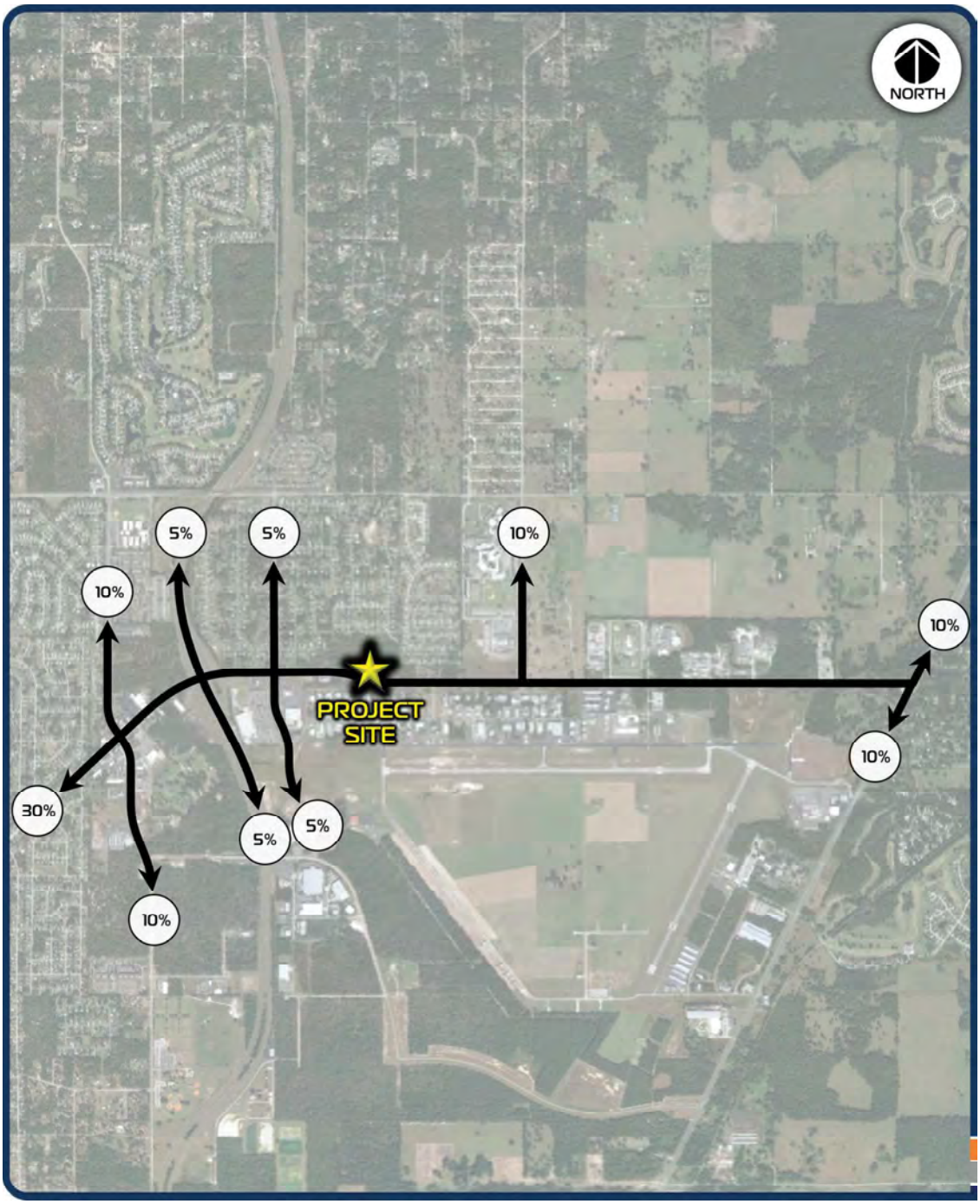
SPRING HILL DEVELOPMENT

PROJECT GENERATED TRAFFIC VOLUMES (NEW EXTERNAL TRIPS)



SPRING HILL DEVELOPMENT

PROJECT GENERATED TRAFFIC VOLUMES (PASS-BY TRIPS)


NORTH
5%
5%
10%
10%
10%
10%
PROJECT SITE
30%
5%
5%
10%

SPRING HILL DEVELOPMENT

TRAFFIC ACCESS ANALYSIS

ATTACHMENT C

TRAFFIC VOLUMES
& ADJUSTMENT FACTORS

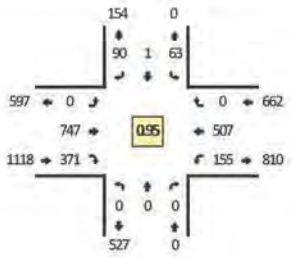
Type of peak hour being reported: Intersection Peak

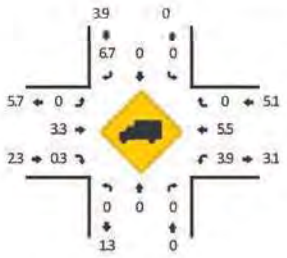
Method for determining peak hour: Total Entering Volume

LOCATION: Suncoast Parkway Western Ramp -- Spring Hill Drive
CITY/STATE: Spring Hill, FL

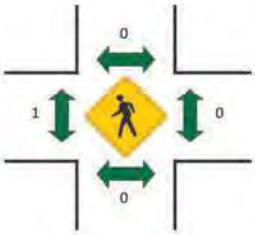
QC JOB #: 16255801
DATE: Tue, Jun 27 2023

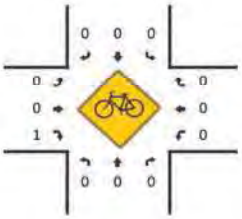
Peak-Hour: 7:30 AM – 8:30 AM
Peak 15-Min: 7:45 AM – 8:00 AM

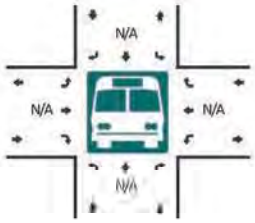


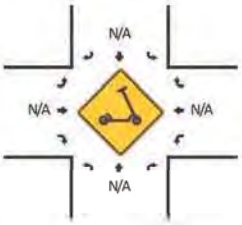


Quality Counts
DATA THAT DRIVES COMMUNITIES









R* = RTOR

15-Min Count Period Beginning At	Suncoast Parkway Western Ramp (Northbound)					Suncoast Parkway Western Ramp (Southbound)					Spring Hill Drive (Eastbound)					Spring Hill Drive (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
7:00 AM	0	0	0	0	0	9	0	6	0	4	0	179	118	0	15	38	70	0	0	0	439	
7:15 AM	0	0	0	0	0	10	0	8	0	3	0	202	88	0	7	35	93	0	0	0	446	
7:30 AM	0	0	0	0	0	11	0	16	0	10	0	197	101	0	12	49	107	0	0	0	503	
7:45 AM	0	0	0	0	0	15	0	17	0	11	0	223	73	0	5	42	122	0	0	0	508	1896
8:00 AM	0	0	0	0	0	28	1	7	0	4	0	154	90	0	9	41	141	0	0	0	475	1932
8:15 AM	0	0	0	0	0	9	0	14	0	11	0	173	77	0	4	23	137	0	0	0	448	1934
8:30 AM	0	0	0	0	0	16	0	8	0	3	0	157	53	1	0	29	133	0	0	0	400	1831
8:45 AM	0	0	0	0	0	8	0	9	0	8	0	160	67	0	4	18	138	0	0	0	412	1735

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	
All Vehicles	0	0	0	0	0	60	0	112	0	44	0	892	312	0	20	168	488	0	0	0	2096
Heavy Trucks	0	0	0			0	0	0			0	12	0			0	20	0			32
Buses																					
Pedestrians		0					0					4					0				4
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

Comments:

Report generated on 7/5/2023 4:00 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

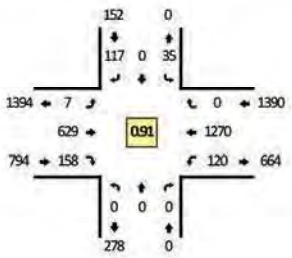
Type of peak hour being reported: Intersection Peak

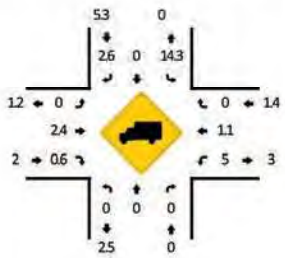
Method for determining peak hour: Total Entering Volume

LOCATION: Suncoast Parkway Western Ramp -- Spring Hill Drive
CITY/STATE: Spring Hill, FL

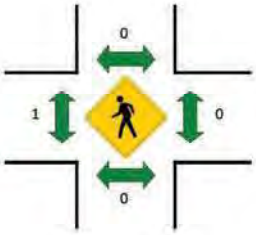
QC JOB #: 16255802
DATE: Tue, Jun 27 2023

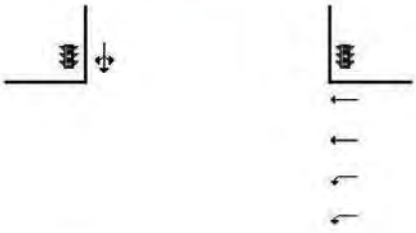
Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

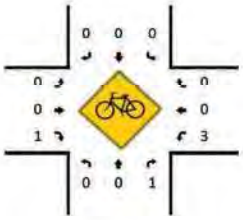


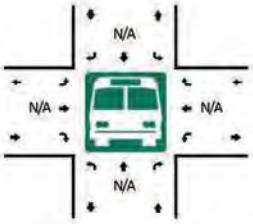


Quality Counts
DATA THAT DRIVES COMMUNITIES









R* = RTOR

15-Min Count Period Beginning At	Suncoast Parkway Western Ramp (Northbound)					Suncoast Parkway Western Ramp (Southbound)					Spring Hill Drive (Eastbound)					Spring Hill Drive (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	0	0	0	0	0	2	0	1	0	24	0	135	29	0	6	17	329	0	0	0	543	
4:15 PM	0	0	0	0	0	10	0	6	0	7	0	130	25	3	11	23	263	0	0	0	478	
4:30 PM	0	0	0	0	0	12	1	10	0	15	0	126	29	5	9	26	331	0	0	0	564	
4:45 PM	0	0	0	0	0	13	0	7	0	21	0	125	33	1	5	18	315	0	0	0	538	2123
5:00 PM	0	0	0	0	0	3	0	2	0	23	0	172	36	6	9	42	348	0	0	0	641	2221
5:15 PM	0	0	0	0	0	9	0	12	0	25	0	178	28	0	8	29	295	0	0	0	584	2327
5:30 PM	0	0	0	0	0	10	0	8	0	19	0	154	30	0	9	31	312	0	0	0	573	2336
5:45 PM	0	0	0	0	0	9	0	3	0	12	0	115	27	0	6	26	269	0	0	0	467	2265

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	
All Vehicles	0	0	0	0	0	12	0	100	0	92	0	688	180	24	36	168	1392	0	0	0	2692
Heavy Trucks	0	0	0			0	0	0			0	8	0			8	8	0			24
Buses																					
Pedestrians		0					0					4					0				4
Bicycles	0	0	4			0	0	0			0	0	0			0	0	0			4
Scooters																					

Comments:

Report generated on 7/5/2023 4:00 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

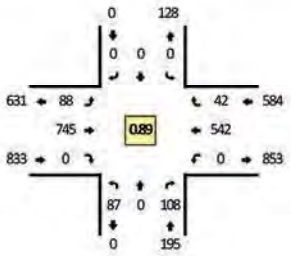
Type of peak hour being reported: Intersection Peak

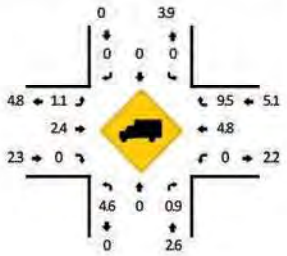
Method for determining peak hour: Total Entering Volume

LOCATION: Suncoast Parkway Eastern Ramp -- Spring Hill Drive
CITY/STATE: Spring Hill, FL

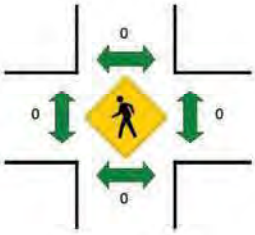
QC JOB #: 16255803
DATE: Tue, Jun 27 2023

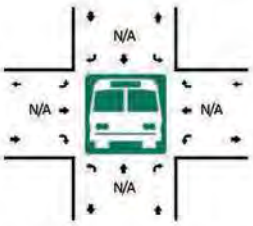
Peak-Hour: 7:15 AM -- 8:15 AM
Peak 15-Min: 7:45 AM -- 8:00 AM





Quality Counts
DATA THAT DRIVES COMMUNITIES





R* = RTOR

15-Min Count Period Beginning At	Suncoast Parkway Eastern Ramp (Northbound)					Suncoast Parkway Eastern Ramp (Southbound)					Spring Hill Drive (Eastbound)					Spring Hill Drive (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
7:00 AM	17	0	6	0	13	0	0	0	0	0	28	162	0	0	0	0	90	5	0	3	324	
7:15 AM	19	0	5	0	26	0	0	0	0	0	20	190	0	1	0	0	118	7	0	2	388	
7:30 AM	16	0	8	0	14	0	0	0	0	0	24	183	0	1	0	0	131	6	0	1	384	
7:45 AM	29	0	12	0	24	0	0	0	0	0	24	213	0	0	0	0	140	11	0	0	453	1549
8:00 AM	23	0	6	0	13	0	0	0	0	0	18	159	0	0	0	0	153	15	0	0	387	1612
8:15 AM	23	0	9	0	12	0	0	0	0	0	14	174	0	0	0	0	139	9	0	0	380	1604
8:30 AM	31	0	8	0	14	0	0	0	0	0	13	157	0	0	0	0	135	12	0	1	371	1591
8:45 AM	28	0	2	0	18	0	0	0	0	0	10	154	0	1	0	0	123	5	0	2	343	1481

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	
All Vehicles	116	0	144	0	96	0	0	0	0	0	96	852	0	0	0	0	560	44	0	0	1908
Heavy Trucks	4	0	0			0	0	0			0	8	0			0	12	4			28
Buses																					
Pedestrians		0					0					0					0				0
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

Comments:

Report generated on 7/5/2023 4:00 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

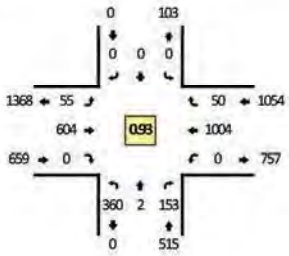
Type of peak hour being reported: Intersection Peak

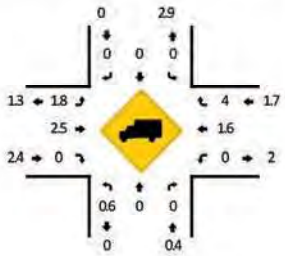
Method for determining peak hour: Total Entering Volume

LOCATION: Suncoast Parkway Eastern Ramp -- Spring Hill Drive
CITY/STATE: Spring Hill, FL

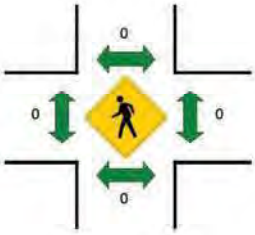
QC JOB #: 16255804
DATE: Tue, Jun 27 2023

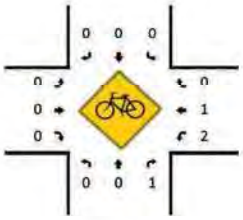
Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

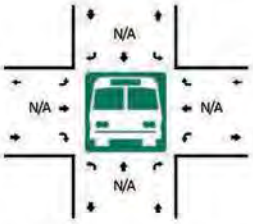




Quality Counts
DATA THAT DRIVES COMMUNITIES







R* = RTOR

15-Min Count Period Beginning At	Suncoast Parkway Eastern Ramp (Northbound)					Suncoast Parkway Eastern Ramp (Southbound)					Spring Hill Drive (Eastbound)					Spring Hill Drive (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	77	0	9	0	21	0	0	0	0	0	12	121	0	3	0	0	263	20	0	0	526	
4:15 PM	73	0	12	0	21	0	0	0	0	0	9	132	0	1	0	0	220	17	0	1	486	
4:30 PM	94	0	12	0	20	0	0	0	0	0	12	120	0	5	0	0	267	31	0	2	563	
4:45 PM	81	1	21	0	15	0	0	0	0	0	12	129	0	0	0	0	240	13	0	1	513	2088
5:00 PM	93	1	19	0	20	0	0	0	0	0	17	147	0	4	0	0	282	14	0	0	597	2159
5:15 PM	84	0	11	0	23	0	0	0	0	0	12	174	0	0	0	0	240	8	0	1	553	2226
5:30 PM	102	0	15	0	29	0	0	0	0	0	10	154	0	0	0	0	242	12	0	1	565	2228
5:45 PM	82	0	13	0	21	0	0	0	0	0	7	117	0	0	0	0	210	9	0	1	460	2175

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	
All Vehicles	372	4	156	0	80	0	0	0	0	0	68	588	0	16	0	0	1128	56	0	0	2468
Heavy Trucks	0	0	0			0	0	0			0	4	0			0	16	4			24
Buses																					
Pedestrians		0					0					0					0				0
Bicycles	0	0	4			0	0	0			0	0	0			0	0	0			4
Scooters																					

Comments:

Report generated on 7/5/2023 4:00 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

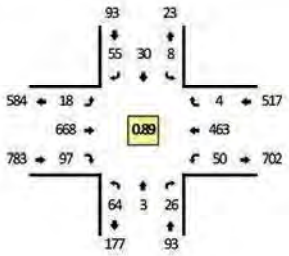
Type of peak hour being reported: Intersection Peak

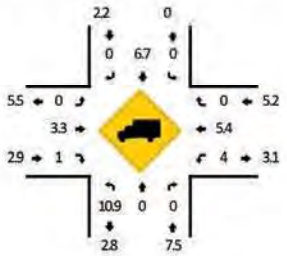
Method for determining peak hour: Total Entering Volume

LOCATION: Spring Park Way -- Spring Hill Drive
CITY/STATE: Spring Hill, FL

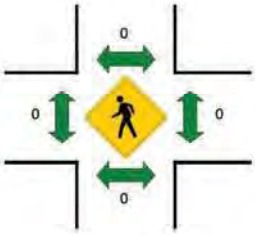
QC JOB #: 16255805
DATE: Tue, Jun 27 2023

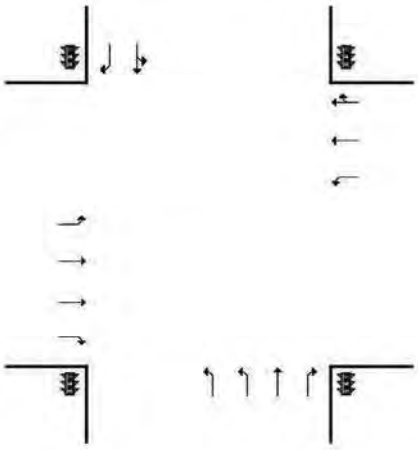
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

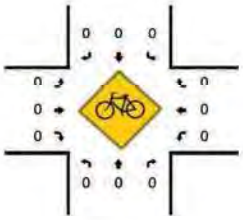


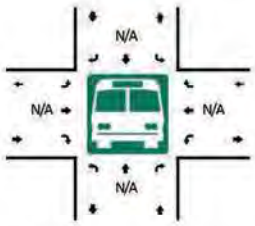


Quality Counts
DATA THAT DRIVES COMMUNITIES









R* = RTOR

15-Min Count Period Beginning At	Spring Park Way (Northbound)					Spring Park Way (Southbound)					Spring Hill Drive (Eastbound)					Spring Hill Drive (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
7:00 AM	8	2	2	0	2	0	4	6	0	15	4	151	16	1	0	4	68	0	0	0	283	
7:15 AM	6	0	0	0	3	3	2	3	0	7	2	183	21	0	0	12	102	0	0	0	344	
7:30 AM	11	1	1	0	8	0	8	2	0	7	3	168	23	0	3	9	107	0	0	0	351	
7:45 AM	12	0	2	0	4	5	3	3	0	9	3	209	30	1	2	11	121	3	0	0	418	1396
8:00 AM	24	0	3	0	3	3	9	4	0	13	3	136	19	1	5	14	124	1	0	0	362	1475
8:15 AM	17	2	2	0	3	0	10	7	0	10	7	155	12	0	3	16	111	0	0	0	355	1486
8:30 AM	16	3	4	0	3	1	13	5	0	9	6	134	21	0	3	5	111	1	0	1	336	1471
8:45 AM	12	1	2	0	7	2	5	5	0	5	8	123	24	1	0	15	102	4	0	0	316	1369

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	
All Vehicles	48	0	24	0	16	20	12	48	0	36	12	836	128	4	8	44	484	12	0	0	1732
Heavy Trucks	0	0	0			0	0	0			0	4	4			0	28	0			36
Buses																					
Pedestrians		0					0					0					0				0
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

Comments:

Report generated on 7/5/2023 4:00 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

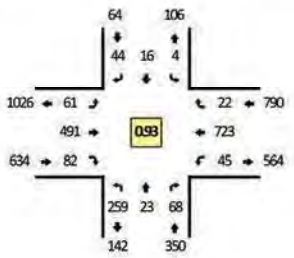
Type of peak hour being reported: Intersection Peak

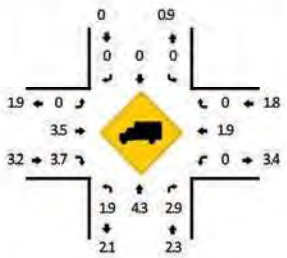
Method for determining peak hour: Total Entering Volume

LOCATION: Spring Park Way -- Spring Hill Drive
CITY/STATE: Spring Hill, FL

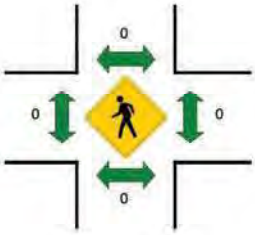
QC JOB #: 16255806
DATE: Tue, Jun 27 2023

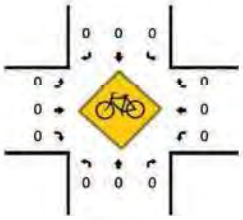
Peak-Hour: 4:30 PM -- 5:30 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

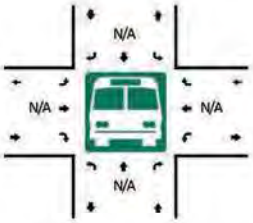


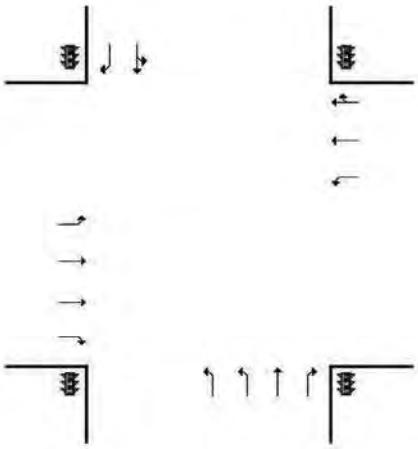


Quality Counts
DATA THAT DRIVES COMMUNITIES









R* = RTOR

15-Min Count Period Beginning At	Spring Park Way (Northbound)					Spring Park Way (Southbound)					Spring Hill Drive (Eastbound)					Spring Hill Drive (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	68	3	3	0	9	1	6	9	0	9	14	103	15	0	1	13	194	5	0	0	453	
4:15 PM	38	1	4	0	10	0	6	4	0	10	9	119	18	0	1	9	166	0	0	0	395	
4:30 PM	96	3	9	0	20	1	2	2	0	6	14	103	19	0	1	6	181	5	0	0	468	
4:45 PM	52	6	3	0	8	0	5	3	0	7	16	112	17	0	1	13	175	4	0	0	422	1738
5:00 PM	70	8	5	0	11	1	1	4	0	10	21	133	16	0	3	9	196	8	0	0	496	1781
5:15 PM	41	6	2	0	10	2	8	3	0	9	10	143	25	0	0	16	171	5	1	0	452	1838
5:30 PM	52	5	3	0	11	0	7	5	0	7	26	135	12	0	2	15	175	1	0	0	456	1826
5:45 PM	41	6	4	0	4	0	3	5	0	11	21	108	14	1	1	14	147	1	0	0	381	1785

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	
All Vehicles	280	32	64	0	44	4	4	56	0	40	84	532	76	0	12	36	784	32	0	0	2080
Heavy Trucks	8	0	0			0	0	0			0	8	0			0	16	0			32
Buses																					
Pedestrians		0					0					0					0				0
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

Comments:

Report generated on 7/5/2023 4:00 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

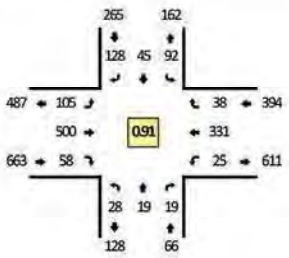
Type of peak hour being reported: Intersection Peak

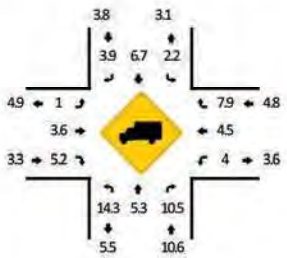
Method for determining peak hour: Total Entering Volume

LOCATION: California Street -- Spring Hill Drive
CITY/STATE: Spring Hill, FL

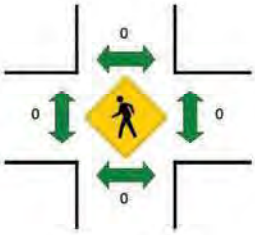
QC JOB #: 16255807
DATE: Tue, Jun 27 2023

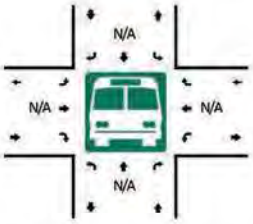
Peak-Hour: 7:15 AM -- 8:15 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

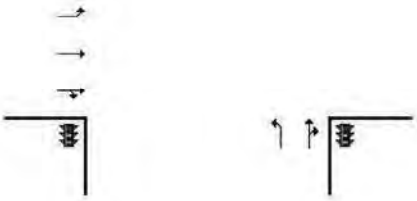




Quality Counts
DATA THAT DRIVES COMMUNITIES







R* = RTOR

15-Min Count Period Beginning At	California Street (Northbound)					California Street (Southbound)					Spring Hill Drive (Eastbound)					Spring Hill Drive (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
7:00 AM	9	3	2	0	1	30	10	7	0	14	20	112	6	0	0	4	48	3	0	2	271	
7:15 AM	7	4	3	0	2	20	15	12	0	17	17	140	7	0	0	4	70	7	0	4	329	
7:30 AM	9	5	6	0	3	20	8	7	0	21	20	129	12	0	2	5	76	4	0	1	328	
7:45 AM	9	7	0	0	2	27	8	20	0	24	46	113	19	0	3	4	87	9	0	3	381	1309
8:00 AM	3	3	1	0	2	25	14	12	0	15	22	118	15	0	0	12	98	6	0	4	350	1388
8:15 AM	8	1	2	0	3	20	13	5	0	11	11	102	12	0	0	6	94	5	0	2	295	1354
8:30 AM	12	8	3	0	3	11	10	6	0	7	17	99	7	0	1	10	78	10	0	5	287	1313
8:45 AM	7	7	1	0	1	11	8	8	0	13	21	89	7	0	4	3	90	3	0	3	276	1208

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	
All Vehicles	36	28	8	0	8	108	32	176	0	96	184	452	88	0	12	16	348	48	0	12	1652
Heavy Trucks	12	4	0			0	0	8			0	0	4			4	4	0			36
Buses																					
Pedestrians		0					0					0					0				0
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

Comments:

Report generated on 7/5/2023 4:00 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

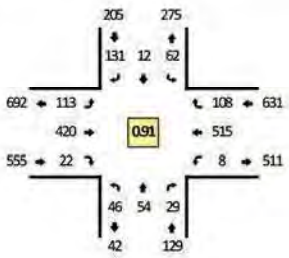
Type of peak hour being reported: Intersection Peak

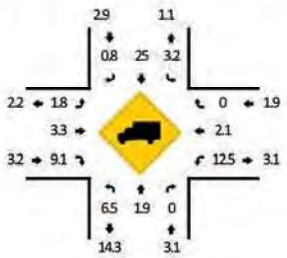
Method for determining peak hour: Total Entering Volume

LOCATION: California Street -- Spring Hill Drive
CITY/STATE: Spring Hill, FL

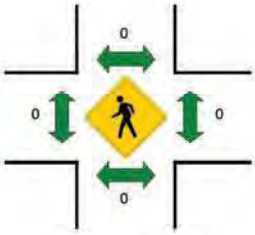
QC JOB #: 16255808
DATE: Tue, Jun 27 2023

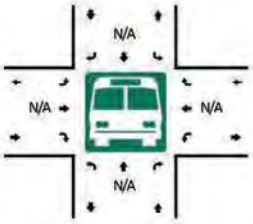
Peak-Hour: 4:30 PM -- 5:30 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

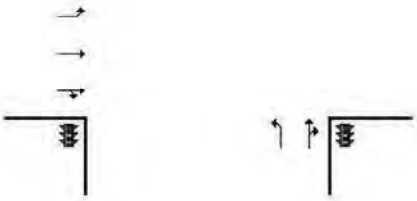




Quality Counts
DATA THAT DRIVES COMMUNITIES







R* = RTOR

15-Min Count Period Beginning At	California Street (Northbound)					California Street (Southbound)					Spring Hill Drive (Eastbound)					Spring Hill Drive (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	18	8	3	0	3	12	4	15	0	17	32	79	1	0	0	6	126	22	0	7	353	
4:15 PM	7	6	3	0	4	12	7	15	0	15	20	76	4	0	2	6	124	11	0	7	319	
4:30 PM	14	20	4	0	4	19	4	8	0	24	34	106	4	0	1	3	133	12	0	8	398	
4:45 PM	8	8	0	0	8	18	2	20	0	15	23	91	5	0	0	2	109	11	0	4	324	1394
5:00 PM	15	17	3	0	3	13	3	21	0	15	26	118	9	0	0	1	137	32	0	5	418	1459
5:15 PM	9	9	4	0	3	12	3	15	0	13	30	105	3	0	0	2	136	25	0	11	380	1520
5:30 PM	9	4	3	0	6	14	1	15	0	20	30	101	1	0	1	2	129	20	0	5	361	1483
5:45 PM	6	6	0	0	5	13	0	11	0	8	23	77	2	0	0	4	120	16	0	5	296	1455

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	
All Vehicles	60	68	24	0	12	52	12	144	0	60	104	472	36	0	0	4	548	148	0	20	1764
Heavy Trucks	8	0	0			0	0	4			4	8	0			0	20	0			44
Buses																					
Pedestrians		0					0					0					0				0
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

Comments:

Report generated on 7/5/2023 4:00 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

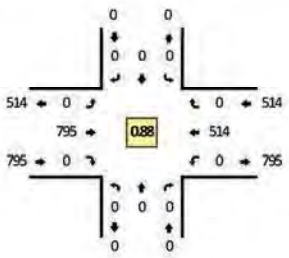
Type of peak hour being reported: Intersection Peak

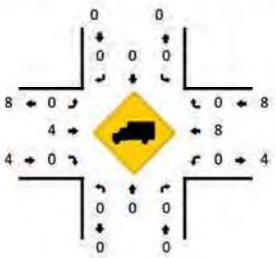
Method for determining peak hour: Total Entering Volume

LOCATION: Spring Hill Drive mid segment -- Spring Hill Drive mid segment
CITY/STATE: Spring Hill, FL

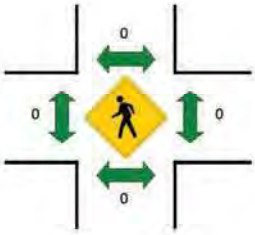
QC JOB #: 16255811
DATE: Tue, Jun 27 2023

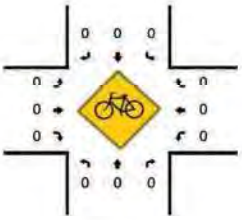
Peak-Hour: 7:15 AM -- 8:15 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

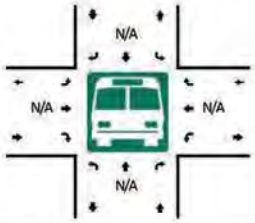




Quality Counts
DATA THAT DRIVES COMMUNITIES







15-Min Count Period Beginning At	Spring Hill Drive mid segment (Northbound)				Spring Hill Drive mid segment (Southbound)				Spring Hill Drive mid segment (Eastbound)				Spring Hill Drive mid segment (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	0	0	0	0	175	0	0	0	75	0	0	250	
7:15 AM	0	0	0	0	0	0	0	0	0	194	0	0	0	113	0	0	307	
7:30 AM	0	0	0	0	0	0	0	0	0	203	0	0	0	121	0	0	324	
7:45 AM	0	0	0	0	0	0	0	0	0	235	0	0	0	138	0	0	373	1254
8:00 AM	0	0	0	0	0	0	0	0	0	163	0	0	0	142	0	0	305	1309
8:15 AM	0	0	0	0	0	0	0	0	0	170	0	0	0	121	0	0	291	1293
8:30 AM	0	0	0	0	0	0	0	0	0	156	0	0	0	119	0	0	275	1244
8:45 AM	0	0	0	0	0	0	0	0	0	132	0	0	0	119	0	0	251	1122

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	0	0	0	940	0	0	0	552	0	0	1492
Heavy Trucks	0	0	0		0	0	0		0	12	0		0	44	0		56
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/5/2023 4:00 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

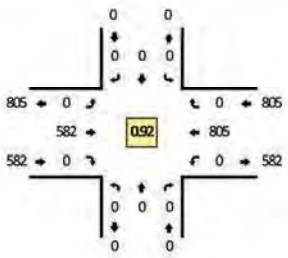
Type of peak hour being reported: Intersection Peak

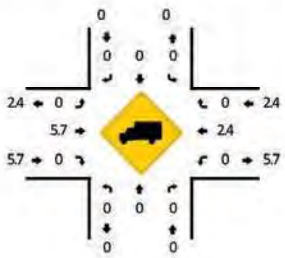
Method for determining peak hour: Total Entering Volume

LOCATION: Spring Hill Drive mid segment -- Spring Hill Drive mid segment
CITY/STATE: Spring Hill, FL

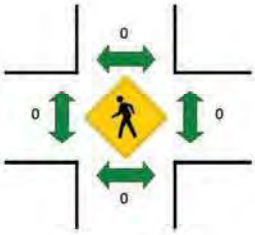
QC JOB #: 16255812
DATE: Tue, Jun 27 2023

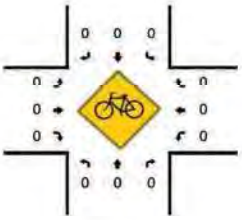
Peak-Hour: 4:30 PM -- 5:30 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

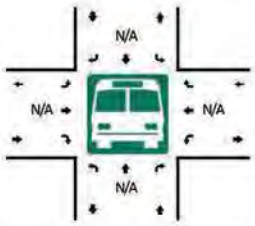




Quality Counts
DATA THAT DRIVES COMMUNITIES







15-Min Count Period Beginning At	Spring Hill Drive mid segment (Northbound)				Spring Hill Drive mid segment (Southbound)				Spring Hill Drive mid segment (Eastbound)				Spring Hill Drive mid segment (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	0	0	0	0	0	117	0	0	0	204	0	0	321	
4:15 PM	0	0	0	0	0	0	0	0	0	129	0	0	0	175	0	0	304	
4:30 PM	0	0	0	0	0	0	0	0	0	136	0	0	0	203	0	0	339	
4:45 PM	0	0	0	0	0	0	0	0	0	126	0	0	0	187	0	0	313	1277
5:00 PM	0	0	0	0	0	0	0	0	0	156	0	0	0	221	0	0	377	1333
5:15 PM	0	0	0	0	0	0	0	0	0	164	0	0	0	194	0	0	358	1387
5:30 PM	0	0	0	0	0	0	0	0	0	147	0	0	0	192	0	0	339	1387
5:45 PM	0	0	0	0	0	0	0	0	0	126	0	0	0	158	0	0	284	1358

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	0	0	0	624	0	0	0	884	0	0	1508
Heavy Trucks	0	0	0		0	0	0		0	32	0		0	24	0		56
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/5/2023 4:00 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

2022 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 0800 HERNANDO COUNTYWIDE

MOCF: 0.95

WEEK	DATES	SF	PSCF
1	01/01/2022 - 01/01/2022	0.99	1.04
2	01/02/2022 - 01/08/2022	1.02	1.07
3	01/09/2022 - 01/15/2022	1.05	1.11
4	01/16/2022 - 01/22/2022	1.04	1.09
5	01/23/2022 - 01/29/2022	1.02	1.07
6	01/30/2022 - 02/05/2022	1.01	1.06
7	02/06/2022 - 02/12/2022	0.99	1.04
* 8	02/13/2022 - 02/19/2022	0.97	1.02
* 9	02/20/2022 - 02/26/2022	0.97	1.02
*10	02/27/2022 - 03/05/2022	0.96	1.01
*11	03/06/2022 - 03/12/2022	0.95	1.00
*12	03/13/2022 - 03/19/2022	0.94	0.99
*13	03/20/2022 - 03/26/2022	0.94	0.99
*14	03/27/2022 - 04/02/2022	0.94	0.99
*15	04/03/2022 - 04/09/2022	0.94	0.99
*16	04/10/2022 - 04/16/2022	0.94	0.99
*17	04/17/2022 - 04/23/2022	0.95	1.00
*18	04/24/2022 - 04/30/2022	0.96	1.01
*19	05/01/2022 - 05/07/2022	0.97	1.02
*20	05/08/2022 - 05/14/2022	0.98	1.03
21	05/15/2022 - 05/21/2022	0.99	1.04
22	05/22/2022 - 05/28/2022	1.00	1.05
23	05/29/2022 - 06/04/2022	1.02	1.07
24	06/05/2022 - 06/11/2022	1.03	1.08
25	06/12/2022 - 06/18/2022	1.05	1.11
26	06/19/2022 - 06/25/2022	1.05	1.11
27	06/26/2022 - 07/02/2022	1.06	1.12
28	07/03/2022 - 07/09/2022	1.06	1.12
29	07/10/2022 - 07/16/2022	1.07	1.13
30	07/17/2022 - 07/23/2022	1.07	1.13
31	07/24/2022 - 07/30/2022	1.07	1.13
32	07/31/2022 - 08/06/2022	1.07	1.13
33	08/07/2022 - 08/13/2022	1.07	1.13
34	08/14/2022 - 08/20/2022	1.07	1.13
35	08/21/2022 - 08/27/2022	1.07	1.13
36	08/28/2022 - 09/03/2022	1.07	1.13
37	09/04/2022 - 09/10/2022	1.07	1.13
38	09/11/2022 - 09/17/2022	1.07	1.13
39	09/18/2022 - 09/24/2022	1.04	1.09
40	09/25/2022 - 10/01/2022	1.01	1.06
41	10/02/2022 - 10/08/2022	0.99	1.04
42	10/09/2022 - 10/15/2022	0.96	1.01
43	10/16/2022 - 10/22/2022	0.97	1.02
44	10/23/2022 - 10/29/2022	0.97	1.02
45	10/30/2022 - 11/05/2022	0.98	1.03
46	11/06/2022 - 11/12/2022	0.98	1.03
47	11/13/2022 - 11/19/2022	0.99	1.04
48	11/20/2022 - 11/26/2022	0.99	1.04
49	11/27/2022 - 12/03/2022	0.99	1.04
50	12/04/2022 - 12/10/2022	0.99	1.04
51	12/11/2022 - 12/17/2022	0.99	1.04
52	12/18/2022 - 12/24/2022	1.02	1.07
53	12/25/2022 - 12/31/2022	1.05	1.11

* PEAK SEASON

SPRING HILL DEVELOPMENT

TRAFFIC ACCESS ANALYSIS

ATTACHMENT D

HISTORICAL TRAFFIC VOLUME GROWTH

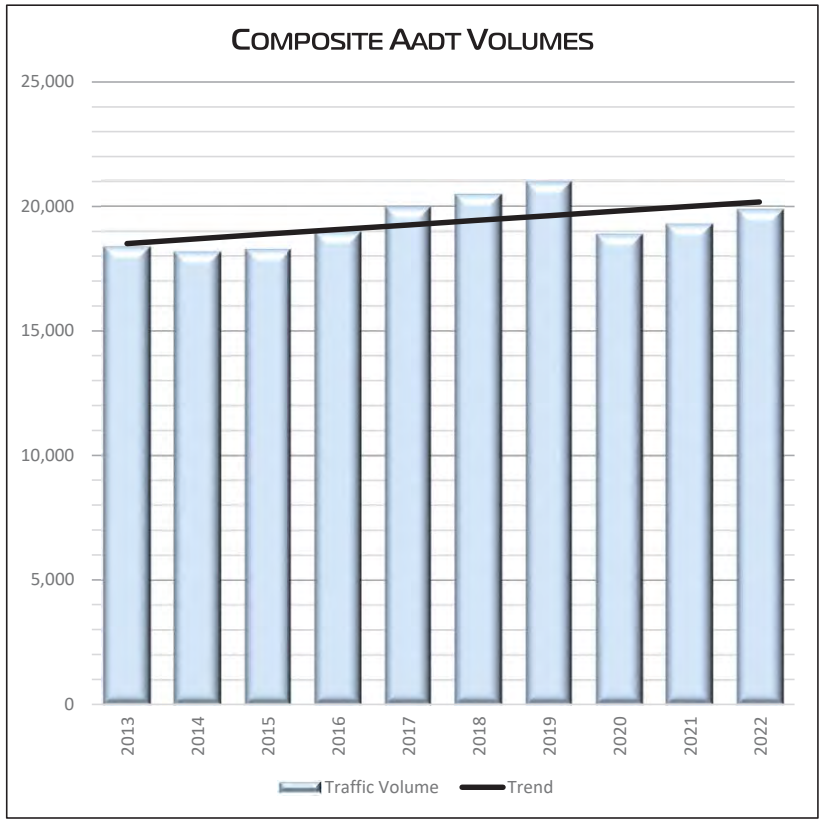
Spring Hill Development

Growth Rate Calculations

Year	Location A	Location B	Location C	Location D	Total	Linear Trend
2022	19,900	--	--	--	19,900	20,187
2021	19,300	--	--	--	19,300	20,001
2020	18,900	--	--	--	18,900	19,815
2019	21,000	--	--	--	21,000	19,629
2018	20,500	--	--	--	20,500	19,443
2017	20,000	--	--	--	20,000	19,257
2016	19,000	--	--	--	19,000	19,071
2015	18,300	--	--	--	18,300	18,885
2014	18,200	--	--	--	18,200	18,699
2013	18,400	--	--	--	18,400	18,513
				10 Year Annual Growth Rate >>>		1.0%

SOURCE

Location A: FDOT Count Station 08-2017 [Spring Hill Drive, east of Suncoast Parkway]
Location B: N/A
Location C: N/A
Location D: N/A



ATTACHMENT D - 1 of 2

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 08 - HERNANDO

SITE: 2017 - CR 574/SPRINGHILL DR, EAST OF SUNCOAST PKWY (HPMS)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2022	19900 S	E 9900	W 10000	9.00	54.50	9.60
2021	19300 F	E 9500	W 9800	9.00	54.20	7.00
2020	18900 C	E 9300	W 9600	9.00	54.30	5.90
2019	21000 X	0	0	9.00	54.30	6.90
2018	20500 X	0	0	9.00	54.40	6.40
2017	20000 X	0	0	9.00	55.60	2.90
2016	19000 E	0	0	9.00	54.80	4.70
2015	18300 E			9.00	55.00	3.80
2014	18200 S	E 9200	W 9000	9.00	56.00	4.40
2013	18400 F	E 9300	W 9100	9.00	56.80	4.40
2012	18600 C	E 9400	W 9200	9.00	55.00	4.40
2011	15900 S	E 7600	W 8300	9.00	55.00	4.20
2010	15900 F	E 7600	W 8300	9.74	54.68	4.20
2009	16200 C	E 7700	W 8500	9.60	55.47	4.20
2008	16100 C	E 7500	W 8600	9.72	54.99	5.90

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

SPRING HILL DEVELOPMENT

TRAFFIC ACCESS ANALYSIS

ATTACHMENT E

FDOT GENERALIZED CAPACITY VALUES

TABLE 4

Generalized **Peak Hour Two-Way** Volumes for Florida's Urbanized Areas[1]

January 2020

INTERRUPTED FLOW FACILITIES

STATE SIGNALIZED ARTERIALS

Class I (40 mph or higher posted speed limit)

Lanes	Median	B	C	D	E
2	Undivided	*	1,510	1,600	**
4	Divided	*	3,420	3,580	**
6	Divided	*	5,250	5,390	**
8	Divided	*	7,090	7,210	**

Class II (35 mph or slower posted speed limit)

Lanes	Median	B	C	D	E
2	Undivided	*	660	1,330	1,410
4	Divided	*	1,310	2,920	3,040
6	Divided	*	2,090	4,500	4,590
8	Divided	*	2,880	6,060	6,130

Non-State Signalized Roadway Adjustments

(Alter corresponding state volumes by the indicated percent.)

Non-State Signalized Roadways	- 10%

Median & Turn Lane Adjustments

Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors
2	Divided	Yes	No	+5%
2	Undivided	No	No	-20%
Multi	Undivided	Yes	No	-5%
Multi	Undivided	No	No	-25%
–	–	–	Yes	+ 5%

One-Way Facility Adjustment

Multiply the corresponding two-directional volumes in this table by 0.6

BICYCLE MODE[2]

(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Paved Shoulder/Bicycle Lane Coverage	B	C	D	E
0-49%	*	260	680	1,770
50-84%	190	600	1,770	>1,770
85-100%	830	1,700	>1,770	**

PEDESTRIAN MODE[2]

(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Sidewalk Coverage	B	C	D	E
0-49%	*	*	250	850
50-84%	*	150	780	1,420
85-100%	340	960	1,560	>1,770

BUS MODE (Scheduled Fixed Route)[3]

(Buses in peak hour in peak direction)

Sidewalk Coverage	B	C	D	E
0-84%	> 5	≥ 4	≥ 3	≥ 2
85-100%	> 4	≥ 3	≥ 2	≥ 1

UNINTERRUPTED FLOW FACILITIES

FREEWAYS

Core Urbanized

Lanes	B	C	D	E
4	4,050	5,640	6,800	7,420
6	5,960	8,310	10,220	11,150
8	7,840	10,960	13,620	14,850
10	9,800	13,510	17,040	18,580
12	11,600	16,350	20,930	23,200

Urbanized

Lanes	B	C	D	E
4	4,130	5,640	7,070	7,690
6	6,200	8,450	10,510	11,530
8	8,270	11,270	13,960	15,380
10	10,350	14,110	17,310	19,220

Freeway Adjustments

Auxiliary Lanes Present in Both Directions	Ramp Metering
+ 1,800	+ 5%

UNINTERRUPTED FLOW HIGHWAYS

Lanes	Median	B	C	D	E
2	Undivided	1,050	1,620	2,180	2,930
4	Divided	3,270	4,730	5,960	6,780
6	Divided	4,910	7,090	8,950	10,180

Uninterrupted Flow Highway Adjustments

Lanes	Median	Exclusive left lanes	Adjustment factors
2	Divided	Yes	+5%
Multi	Undivided	Yes	-5%
Multi	Undivided	No	-25%

[1]Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.

[2] Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.

[3] Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.

* Cannot be achieved using table input value defaults.

** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.

Source:
Florida Department of Transportation
Systems Implementation Office
https://www.fdot.gov/planning/systems/

SPRING HILL DEVELOPMENT

TRAFFIC ACCESS ANALYSIS

ATTACHMENT F

INTERSECTION OPERATIONAL ANALYSIS

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1023	428	192	713	0	0	0	0	89	1	104
Future Volume (veh/h)	0	1023	428	192	713	0	0	0	0	89	1	104
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	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	0	1856	1885	1841	1811	0				1900	1900	1796
Adj Flow Rate, veh/h	0	1077	451	202	751	0				94	1	109
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	3	1	4	6	0				0	0	7
Cap, veh/h	0	1651	691	321	2265	0				123	1	142
Arrive On Green	0.00	0.47	0.47	0.09	0.66	0.00				0.16	0.16	0.16
Sat Flow, veh/h	0	3669	1466	3401	3532	0				782	8	907
Grp Volume(v), veh/h	0	1038	490	202	751	0				204	0	0
Grp Sat Flow(s),veh/h/ln	0	1689	1592	1700	1721	0				1698	0	0
Q Serve(g_s), s	0.0	15.2	15.2	3.7	6.2	0.0				7.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	15.2	15.2	3.7	6.2	0.0				7.5	0.0	0.0
Prop In Lane	0.00		0.92	1.00		0.00				0.46		0.53
Lane Grp Cap(c), veh/h	0	1592	750	321	2265	0				266	0	0
V/C Ratio(X)	0.00	0.65	0.65	0.63	0.33	0.00				0.77	0.00	0.00
Avail Cap(c_a), veh/h	0	2809	1324	1257	4453	0				628	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	13.1	13.1	28.3	4.9	0.0				26.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	1.0	2.0	0.1	0.0				4.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.6	4.4	1.5	1.3	0.0				3.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	13.6	14.1	30.3	4.9	0.0				30.8	0.0	0.0
LnGrp LOS	A	B	B	C	A	A				C	A	A
Approach Vol, veh/h		1528			953						204	
Approach Delay, s/veh		13.7			10.3						30.8	
Approach LOS		B			B						C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	12.1	36.6		16.2		48.7
Change Period (Y+Rc), s	6.0	6.0		6.0		6.0
Max Green Setting (Gmax), s	24.0	54.0		24.0		84.0
Max Q Clear Time (g_c+I1), s	5.7	17.2		9.5		8.2
Green Ext Time (p_c), s	0.6	13.4		1.0		5.5

Intersection Summary		
HCM 6th Ctrl Delay		13.8
HCM 6th LOS		B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	1036	0	0	766	61	100	0	141	0	0	0
Future Volume (veh/h)	102	1036	0	0	766	61	100	0	141	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	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	0	0	1826	1752	1826	0	1885			
Adj Flow Rate, veh/h	115	1164	0	0	861	69	112	0	158			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89			
Percent Heavy Veh, %	1	2	0	0	5	10	5	0	1			
Cap, veh/h	151	2070	0	0	2290	182	326	0	300			
Arrive On Green	0.08	0.58	0.00	0.00	0.38	0.38	0.19	0.00	0.19			
Sat Flow, veh/h	1795	3647	0	0	6233	474	1739	0	1598			
Grp Volume(v), veh/h	115	1164	0	0	677	253	112	0	158			
Grp Sat Flow(s),veh/h/ln	1795	1777	0	0	1570	1741	1739	0	1598			
Q Serve(g_s), s	3.3	10.6	0.0	0.0	5.4	5.5	2.9	0.0	4.7			
Cycle Q Clear(g_c), s	3.3	10.6	0.0	0.0	5.4	5.5	2.9	0.0	4.7			
Prop In Lane	1.00		0.00	0.00		0.27	1.00		1.00			
Lane Grp Cap(c), veh/h	151	2070	0	0	1805	667	326	0	300			
V/C Ratio(X)	0.76	0.56	0.00	0.00	0.37	0.38	0.34	0.00	0.53			
Avail Cap(c_a), veh/h	482	5038	0	0	4873	1801	1133	0	1041			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	23.4	6.8	0.0	0.0	11.6	11.6	18.4	0.0	19.1			
Incr Delay (d2), s/veh	7.6	0.2	0.0	0.0	0.1	0.4	0.6	0.0	1.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.5	2.2	0.0	0.0	1.4	1.7	1.1	0.0	1.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.0	7.0	0.0	0.0	11.7	12.0	19.0	0.0	20.5			
LnGrp LOS	C	A	A	A	B	B	B	A	C			
Approach Vol, veh/h		1279			930			270				
Approach Delay, s/veh		9.2			11.8			19.9				
Approach LOS		A			B			B				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		36.4			10.4	26.0		15.8				
Change Period (Y+Rc), s		6.0			6.0	6.0		6.0				
Max Green Setting (Gmax), s		74.0			14.0	54.0		34.0				
Max Q Clear Time (g_c+I1), s		12.6			5.3	7.5		6.7				
Green Ext Time (p_c), s		10.3			0.2	6.7		0.8				
Intersection Summary												
HCM 6th Ctrl Delay			11.3									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	963	112	71	689	17	74	3	46	25	35	64
Future Volume (veh/h)	21	963	112	71	689	17	74	3	46	25	35	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1856	1885	1841	1826	1900	1737	1900	1900	1900	1796	1900
Adj Flow Rate, veh/h	24	1082	126	80	774	19	83	3	52	28	39	72
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	3	1	4	5	0	11	0	0	0	7	0
Cap, veh/h	322	1420	643	246	1485	36	387	229	194	89	124	194
Arrive On Green	0.03	0.40	0.40	0.05	0.43	0.43	0.12	0.12	0.12	0.12	0.12	0.12
Sat Flow, veh/h	1810	3526	1598	1753	3460	85	3209	1900	1610	735	1024	1610
Grp Volume(v), veh/h	24	1082	126	80	388	405	83	3	52	67	0	72
Grp Sat Flow(s),veh/h/ln	1810	1763	1598	1753	1735	1811	1605	1900	1610	1759	0	1610
Q Serve(g_s), s	0.6	20.9	4.0	2.1	13.0	13.0	1.8	0.1	2.3	2.8	0.0	3.3
Cycle Q Clear(g_c), s	0.6	20.9	4.0	2.1	13.0	13.0	1.8	0.1	2.3	2.8	0.0	3.3
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	0.42		1.00
Lane Grp Cap(c), veh/h	322	1420	643	246	745	777	387	229	194	212	0	194
V/C Ratio(X)	0.07	0.76	0.20	0.33	0.52	0.52	0.21	0.01	0.27	0.32	0.00	0.37
Avail Cap(c_a), veh/h	825	2410	1092	687	1186	1238	975	577	489	535	0	489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.8	20.3	15.3	15.6	16.6	16.6	31.4	30.6	31.6	31.8	0.0	32.0
Incr Delay (d2), s/veh	0.1	0.9	0.1	0.8	0.6	0.5	0.3	0.0	0.7	0.8	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	7.6	1.3	0.8	4.6	4.8	0.7	0.1	0.9	1.2	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.9	21.2	15.4	16.4	17.1	17.1	31.6	30.6	32.3	32.6	0.0	33.2
LnGrp LOS	B	C	B	B	B	B	C	C	C	C	A	C
Approach Vol, veh/h		1232			873			138			139	
Approach Delay, s/veh		20.5			17.1			31.9			32.9	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.1	37.8		15.5	8.0	39.9		15.5				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	24.0	54.0		24.0	24.0	54.0		24.0				
Max Q Clear Time (g_c+I1), s	4.1	22.9		5.3	2.6	15.0		4.3				
Green Ext Time (p_c), s	0.2	8.9		0.5	0.0	5.0		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			20.6									
HCM 6th LOS			C									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	628	67	29	446	44	32	22	22	106	52	179
Future Volume (veh/h)	148	628	67	29	446	44	32	22	22	106	52	179
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1841	1826	1841	1826	1781	1693	1826	1737	1870	1796	1841
Adj Flow Rate, veh/h	163	690	74	32	490	48	35	24	24	116	57	197
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	1	4	5	4	5	8	14	5	11	2	7	4
Cap, veh/h	216	1439	154	62	1171	114	291	153	153	348	329	286
Arrive On Green	0.12	0.45	0.45	0.04	0.37	0.37	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1795	3186	341	1753	3193	312	1019	838	838	1357	1796	1560
Grp Volume(v), veh/h	163	378	386	32	265	273	35	0	48	116	57	197
Grp Sat Flow(s),veh/h/ln	1795	1749	1779	1753	1735	1770	1019	0	1675	1357	1796	1560
Q Serve(g_s), s	4.8	8.3	8.3	1.0	6.2	6.3	1.6	0.0	1.3	4.3	1.5	6.4
Cycle Q Clear(g_c), s	4.8	8.3	8.3	1.0	6.2	6.3	3.1	0.0	1.3	5.6	1.5	6.4
Prop In Lane	1.00		0.19	1.00		0.18	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	216	790	803	62	636	649	291	0	307	348	329	286
V/C Ratio(X)	0.76	0.48	0.48	0.52	0.42	0.42	0.12	0.00	0.16	0.33	0.17	0.69
Avail Cap(c_a), veh/h	790	1732	1762	771	1718	1752	553	0	737	697	790	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	10.5	10.5	25.9	12.9	12.9	20.1	0.0	18.7	21.1	18.8	20.8
Incr Delay (d2), s/veh	5.3	0.5	0.4	6.6	0.4	0.4	0.2	0.0	0.2	0.6	0.2	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	2.4	2.4	0.5	2.0	2.0	0.4	0.0	0.5	1.3	0.6	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.6	10.9	10.9	32.4	13.3	13.4	20.3	0.0	19.0	21.6	19.0	23.8
LnGrp LOS	C	B	B	C	B	B	C	A	B	C	B	C
Approach Vol, veh/h		927			570			83			370	
Approach Delay, s/veh		14.0			14.4			19.5			22.4	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.9	30.6		16.0	12.5	26.0		16.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	24.0	54.0		24.0	24.0	54.0		24.0				
Max Q Clear Time (g_c+I1), s	3.0	10.3		8.4	6.8	8.3		5.1				
Green Ext Time (p_c), s	0.0	4.8		1.2	0.4	3.2		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		16.0	
HCM 6th LOS		B	

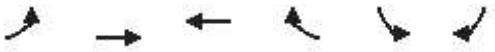
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	67	1075	720	16	8	53
Future Vol, veh/h	67	1075	720	16	8	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	455	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	4	8	2	2	2
Mvmt Flow	76	1222	818	18	9	60

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	836	0	-	0	1590	418
Stage 1	-	-	-	-	827	-
Stage 2	-	-	-	-	763	-
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	794	-	-	-	98	584
Stage 1	-	-	-	-	390	-
Stage 2	-	-	-	-	421	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	794	-	-	-	89	584
Mov Cap-2 Maneuver	-	-	-	-	215	-
Stage 1	-	-	-	-	353	-
Stage 2	-	-	-	-	421	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	13.8
HCM LOS			B

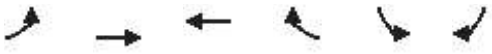
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	794	-	-	-	477
HCM Lane V/C Ratio	0.096	-	-	-	0.145
HCM Control Delay (s)	10	-	-	-	13.8
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.5



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	169	914	606	78	98	130
Future Volume (veh/h)	169	914	606	78	98	130
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	1841	1781	1870	1870	1870
Adj Flow Rate, veh/h	192	1039	689	89	111	148
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	4	8	2	2	2
Cap, veh/h	463	2061	1277	890	329	292
Arrive On Green	0.10	0.59	0.38	0.38	0.18	0.18
Sat Flow, veh/h	1781	3589	3474	1585	1781	1585
Grp Volume(v), veh/h	192	1039	689	89	111	148
Grp Sat Flow(s),veh/h/ln	1781	1749	1692	1585	1781	1585
Q Serve(g_s), s	3.1	9.2	8.4	1.4	2.9	4.5
Cycle Q Clear(g_c), s	3.1	9.2	8.4	1.4	2.9	4.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	463	2061	1277	890	329	292
V/C Ratio(X)	0.41	0.50	0.54	0.10	0.34	0.51
Avail Cap(c_a), veh/h	1093	5541	3447	1907	806	717
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.4	6.4	12.9	5.4	18.8	19.4
Incr Delay (d2), s/veh	0.6	0.2	0.4	0.0	0.6	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.9	2.5	0.5	1.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.0	6.6	13.3	5.4	19.4	20.8
LnGrp LOS	A	A	B	A	B	C
Approach Vol, veh/h		1231	778		259	
Approach Delay, s/veh		6.9	12.4		20.2	
Approach LOS		A	B		C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		37.2		15.8	11.2	26.0
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		84.0		24.0	24.0	54.0
Max Q Clear Time (g_c+I1), s		11.2		6.5	5.1	10.4
Green Ext Time (p_c), s		8.7		0.7	0.5	5.2

Intersection Summary	
HCM 6th Ctrl Delay	10.3
HCM 6th LOS	B



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	192	1039	689	89	111	148
v/c Ratio	0.37	0.48	0.59	0.09	0.36	0.37
Control Delay	6.9	6.9	19.4	1.7	27.2	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.9	6.9	19.4	1.7	27.2	8.1
Queue Length 50th (ft)	24	86	104	0	35	0
Queue Length 95th (ft)	50	135	174	14	85	42
Internal Link Dist (ft)		720	720		420	
Turn Bay Length (ft)	505			455		
Base Capacity (vph)	807	3471	2983	1349	702	717
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.30	0.23	0.07	0.16	0.21

Intersection Summary

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	34	978	657	32	16	27
Future Vol, veh/h	34	978	657	32	16	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	455	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	4	8	2	2	2
Mvmt Flow	39	1111	747	36	18	31

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	783	0	-	0	1399	392
Stage 1	-	-	-	-	765	-
Stage 2	-	-	-	-	634	-
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	831	-	-	-	132	607
Stage 1	-	-	-	-	420	-
Stage 2	-	-	-	-	491	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	831	-	-	-	126	607
Mov Cap-2 Maneuver	-	-	-	-	258	-
Stage 1	-	-	-	-	400	-
Stage 2	-	-	-	-	491	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	15.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	831	-	-	-	404
HCM Lane V/C Ratio	0.046	-	-	-	0.121
HCM Control Delay (s)	9.5	-	-	-	15.1
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	835	182	150	1584	0	0	0	0	51	0	135
Future Volume (veh/h)	0	835	182	150	1584	0	0	0	0	51	0	135
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	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	0	1870	1885	1826	1885	0				1693	1900	1856
Adj Flow Rate, veh/h	0	918	200	165	1741	0				56	0	148
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	2	1	5	1	0				14	0	3
Cap, veh/h	0	2083	452	269	2380	0				72	0	191
Arrive On Green	0.00	0.50	0.50	0.08	0.66	0.00				0.16	0.00	0.16
Sat Flow, veh/h	0	4367	911	3374	3676	0				456	0	1205
Grp Volume(v), veh/h	0	744	374	165	1741	0				204	0	0
Grp Sat Flow(s),veh/h/ln	0	1702	1706	1687	1791	0				1660	0	0
Q Serve(g_s), s	0.0	9.5	9.6	3.2	21.5	0.0				8.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	9.5	9.6	3.2	21.5	0.0				8.0	0.0	0.0
Prop In Lane	0.00		0.53	1.00		0.00				0.27		0.73
Lane Grp Cap(c), veh/h	0	1689	846	269	2380	0				263	0	0
V/C Ratio(X)	0.00	0.44	0.44	0.61	0.73	0.00				0.78	0.00	0.00
Avail Cap(c_a), veh/h	0	2714	1361	1196	4443	0				588	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	11.0	11.0	30.1	7.4	0.0				27.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.4	2.3	0.4	0.0				4.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.9	2.9	1.3	4.8	0.0				3.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	11.2	11.4	32.4	7.9	0.0				32.2	0.0	0.0
LnGrp LOS	A	B	B	C	A	A				C	A	A
Approach Vol, veh/h		1118			1906						204	
Approach Delay, s/veh		11.3			10.0						32.2	
Approach LOS		B			A						C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.4	39.6		16.7		51.0
Change Period (Y+Rc), s	6.0	6.0		6.0		6.0
Max Green Setting (Gmax), s	24.0	54.0		24.0		84.0
Max Q Clear Time (g_c+I1), s	5.2	11.6		10.0		23.5
Green Ext Time (p_c), s	0.5	8.5		1.0		21.5

Intersection Summary	
HCM 6th Ctrl Delay	11.8
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	817	0	0	1289	70	417	0	187	0	0	0
Future Volume (veh/h)	64	817	0	0	1289	70	417	0	187	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	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	1856	0	0	1870	1841	1885	0	1900			
Adj Flow Rate, veh/h	69	878	0	0	1386	75	448	0	201			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	3	0	0	2	4	1	0	0			
Cap, veh/h	96	1861	0	0	2423	131	528	0	474			
Arrive On Green	0.05	0.53	0.00	0.00	0.38	0.38	0.29	0.00	0.29			
Sat Flow, veh/h	1781	3618	0	0	6556	340	1795	0	1610			
Grp Volume(v), veh/h	69	878	0	0	1062	399	448	0	201			
Grp Sat Flow(s),veh/h/ln	1781	1763	0	0	1609	1809	1795	0	1610			
Q Serve(g_s), s	2.6	10.5	0.0	0.0	11.7	11.7	15.8	0.0	6.8			
Cycle Q Clear(g_c), s	2.6	10.5	0.0	0.0	11.7	11.7	15.8	0.0	6.8			
Prop In Lane	1.00		0.00	0.00		0.19	1.00		1.00			
Lane Grp Cap(c), veh/h	96	1861	0	0	1857	696	528	0	474			
V/C Ratio(X)	0.72	0.47	0.00	0.00	0.57	0.57	0.85	0.00	0.42			
Avail Cap(c_a), veh/h	370	3873	0	0	3868	1450	906	0	813			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	31.4	10.0	0.0	0.0	16.3	16.3	22.4	0.0	19.2			
Incr Delay (d2), s/veh	9.7	0.2	0.0	0.0	0.3	0.7	3.9	0.0	0.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.3	3.1	0.0	0.0	3.6	4.2	6.7	0.0	2.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.0	10.2	0.0	0.0	16.6	17.1	26.3	0.0	19.8			
LnGrp LOS	D	B	A	A	B	B	C	A	B			
Approach Vol, veh/h		947			1461			649				
Approach Delay, s/veh		12.4			16.7			24.3				
Approach LOS		B			B			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		41.6			9.6	31.9		25.8				
Change Period (Y+Rc), s		6.0			6.0	6.0		6.0				
Max Green Setting (Gmax), s		74.0			14.0	54.0		34.0				
Max Q Clear Time (g_c+I1), s		12.5			4.6	13.7		17.8				
Green Ext Time (p_c), s		6.8			0.1	12.2		2.0				
Intersection Summary												
HCM 6th Ctrl Delay			17.0									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	699	95	64	977	38	299	27	89	15	19	50
Future Volume (veh/h)	70	699	95	64	977	38	299	27	89	15	19	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1841	1841	1900	1870	1900	1870	1841	1856	1900	1900	1900
Adj Flow Rate, veh/h	75	752	102	69	1051	41	322	29	96	16	20	54
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	4	4	0	2	0	2	4	3	0	0	0
Cap, veh/h	254	1365	609	332	1355	53	463	247	211	92	115	179
Arrive On Green	0.05	0.39	0.39	0.05	0.39	0.39	0.13	0.13	0.13	0.11	0.11	0.11
Sat Flow, veh/h	1810	3497	1560	1810	3487	136	3456	1841	1572	826	1033	1610
Grp Volume(v), veh/h	75	752	102	69	536	556	322	29	96	36	0	54
Grp Sat Flow(s),veh/h/ln	1810	1749	1560	1810	1777	1846	1728	1841	1572	1859	0	1610
Q Serve(g_s), s	1.8	12.8	3.3	1.7	20.2	20.2	6.8	1.1	4.3	1.3	0.0	2.4
Cycle Q Clear(g_c), s	1.8	12.8	3.3	1.7	20.2	20.2	6.8	1.1	4.3	1.3	0.0	2.4
Prop In Lane	1.00		1.00	1.00		0.07	1.00		1.00	0.44		1.00
Lane Grp Cap(c), veh/h	254	1365	609	332	690	717	463	247	211	207	0	179
V/C Ratio(X)	0.30	0.55	0.17	0.21	0.78	0.78	0.69	0.12	0.46	0.17	0.00	0.30
Avail Cap(c_a), veh/h	727	2470	1101	809	1255	1303	1084	578	493	583	0	505
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.6	18.1	15.2	13.7	20.5	20.5	31.6	29.1	30.5	30.8	0.0	31.2
Incr Delay (d2), s/veh	0.6	0.3	0.1	0.3	1.9	1.8	1.9	0.2	1.5	0.4	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.6	1.0	0.6	7.6	7.9	2.9	0.5	1.7	0.6	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.2	18.5	15.3	14.0	22.4	22.3	33.5	29.3	32.1	31.2	0.0	32.2
LnGrp LOS	B	B	B	B	C	C	C	C	C	C	A	C
Approach Vol, veh/h		929			1161			447			90	
Approach Delay, s/veh		17.9			21.8			32.9			31.8	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.8	35.9		14.5	10.0	35.7		16.3				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	24.0	54.0		24.0	24.0	54.0		24.0				
Max Q Clear Time (g_c+I1), s	3.7	14.8		4.4	3.8	22.2		8.8				
Green Ext Time (p_c), s	0.1	5.8		0.3	0.1	7.5		1.4				

Intersection Summary												
HCM 6th Ctrl Delay			22.7									
HCM 6th LOS			C									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	532	26	9	638	125	54	62	33	71	13	173
Future Volume (veh/h)	155	532	26	9	638	125	54	62	33	71	13	173
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1767	1707	1870	1900	1796	1870	1900	1856	1530	1885
Adj Flow Rate, veh/h	170	585	29	10	701	137	59	68	36	78	14	190
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	3	9	13	2	0	7	2	0	3	25	1
Cap, veh/h	223	1631	81	21	1080	211	329	210	111	298	278	291
Arrive On Green	0.13	0.48	0.48	0.01	0.36	0.36	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1781	3419	169	1626	2964	579	1131	1151	609	1280	1530	1598
Grp Volume(v), veh/h	170	301	313	10	420	418	59	0	104	78	14	190
Grp Sat Flow(s),veh/h/ln	1781	1763	1825	1626	1777	1766	1131	0	1761	1280	1530	1598
Q Serve(g_s), s	5.1	5.9	5.9	0.3	10.8	10.8	2.5	0.0	2.8	3.1	0.4	6.1
Cycle Q Clear(g_c), s	5.1	5.9	5.9	0.3	10.8	10.8	2.9	0.0	2.8	5.9	0.4	6.1
Prop In Lane	1.00		0.09	1.00		0.33	1.00		0.35	1.00		1.00
Lane Grp Cap(c), veh/h	223	841	871	21	648	644	329	0	321	298	278	291
V/C Ratio(X)	0.76	0.36	0.36	0.48	0.65	0.65	0.18	0.00	0.32	0.26	0.05	0.65
Avail Cap(c_a), veh/h	779	1735	1796	711	1749	1738	618	0	770	625	669	699
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	9.1	9.1	26.9	14.5	14.5	19.7	0.0	19.5	22.1	18.5	20.8
Incr Delay (d2), s/veh	5.3	0.3	0.3	15.9	1.1	1.1	0.3	0.0	0.6	0.5	0.1	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	1.7	1.7	0.2	3.6	3.6	0.6	0.0	1.1	0.9	0.1	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.5	9.3	9.3	42.8	15.6	15.6	20.0	0.0	20.1	22.5	18.6	23.3
LnGrp LOS	C	A	A	D	B	B	B	A	C	C	B	C
Approach Vol, veh/h		784			848			163			282	
Approach Delay, s/veh		13.5			15.9			20.1			22.9	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.7	32.2		16.0	12.9	26.0		16.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	24.0	54.0		24.0	24.0	54.0		24.0				
Max Q Clear Time (g_c+I1), s	2.3	7.9		8.1	7.1	12.8		4.9				
Green Ext Time (p_c), s	0.0	3.7		0.8	0.4	5.5		0.7				

Intersection Summary												
HCM 6th Ctrl Delay			16.3									
HCM 6th LOS			B									

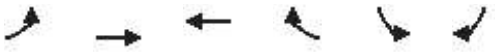
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	46	780	1042	14	7	54
Future Vol, veh/h	46	780	1042	14	7	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	455	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	6	2	2	2	2
Mvmt Flow	50	848	1133	15	8	59

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1148	0	-	0	1665	574
Stage 1	-	-	-	-	1141	-
Stage 2	-	-	-	-	524	-
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	604	-	-	-	88	462
Stage 1	-	-	-	-	267	-
Stage 2	-	-	-	-	559	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	604	-	-	-	81	462
Mov Cap-2 Maneuver	-	-	-	-	185	-
Stage 1	-	-	-	-	245	-
Stage 2	-	-	-	-	559	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	16
HCM LOS			C

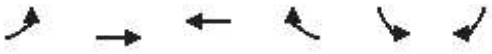
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	604	-	-	-	394
HCM Lane V/C Ratio	0.083	-	-	-	0.168
HCM Control Delay (s)	11.5	-	-	-	16
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0.3	-	-	-	0.6



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	117	670	922	72	84	134
Future Volume (veh/h)	117	670	922	72	84	134
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	1811	1870	1870	1870	1870
Adj Flow Rate, veh/h	127	728	1002	78	91	146
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	6	2	2	2	2
Cap, veh/h	368	2076	1478	941	316	281
Arrive On Green	0.08	0.60	0.42	0.42	0.18	0.18
Sat Flow, veh/h	1781	3532	3647	1585	1781	1585
Grp Volume(v), veh/h	127	728	1002	78	91	146
Grp Sat Flow(s),veh/h/ln	1781	1721	1777	1585	1781	1585
Q Serve(g_s), s	2.0	5.8	12.6	1.2	2.4	4.6
Cycle Q Clear(g_c), s	2.0	5.8	12.6	1.2	2.4	4.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	368	2076	1478	941	316	281
V/C Ratio(X)	0.35	0.35	0.68	0.08	0.29	0.52
Avail Cap(c_a), veh/h	1009	5276	3503	1844	780	694
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.1	5.5	13.0	4.8	19.5	20.4
Incr Delay (d2), s/veh	0.6	0.1	0.6	0.0	0.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.2	3.8	0.4	1.0	4.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.6	5.6	13.6	4.8	20.0	21.9
LnGrp LOS	A	A	B	A	C	C
Approach Vol, veh/h		855	1080		237	
Approach Delay, s/veh		6.2	12.9		21.2	
Approach LOS		A	B		C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		39.1		15.7	10.3	28.8
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		84.0		24.0	24.0	54.0
Max Q Clear Time (g_c+I1), s		7.8		6.6	4.0	14.6
Green Ext Time (p_c), s		5.3		0.6	0.3	8.2

Intersection Summary		
HCM 6th Ctrl Delay		11.2
HCM 6th LOS		B



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	127	728	1002	78	91	146
v/c Ratio	0.32	0.33	0.72	0.07	0.31	0.38
Control Delay	6.4	5.5	20.1	1.4	29.4	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.4	5.5	20.1	1.4	29.4	9.0
Queue Length 50th (ft)	15	54	161	0	30	0
Queue Length 95th (ft)	34	87	268	12	83	48
Internal Link Dist (ft)		720	720		420	
Turn Bay Length (ft)	505			455		
Base Capacity (vph)	742	3406	3032	1387	674	693
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.21	0.33	0.06	0.14	0.21

Intersection Summary

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	23	731	967	28	13	27
Future Vol, veh/h	23	731	967	28	13	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	455	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	6	2	2	2	2
Mvmt Flow	25	795	1051	30	14	29

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1081	0	-	0	1514	541
Stage 1	-	-	-	-	1066	-
Stage 2	-	-	-	-	448	-
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	641	-	-	-	110	485
Stage 1	-	-	-	-	292	-
Stage 2	-	-	-	-	611	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	641	-	-	-	106	485
Mov Cap-2 Maneuver	-	-	-	-	215	-
Stage 1	-	-	-	-	281	-
Stage 2	-	-	-	-	611	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	17
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	641	-	-	-	344
HCM Lane V/C Ratio	0.039	-	-	-	0.126
HCM Control Delay (s)	10.8	-	-	-	17
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

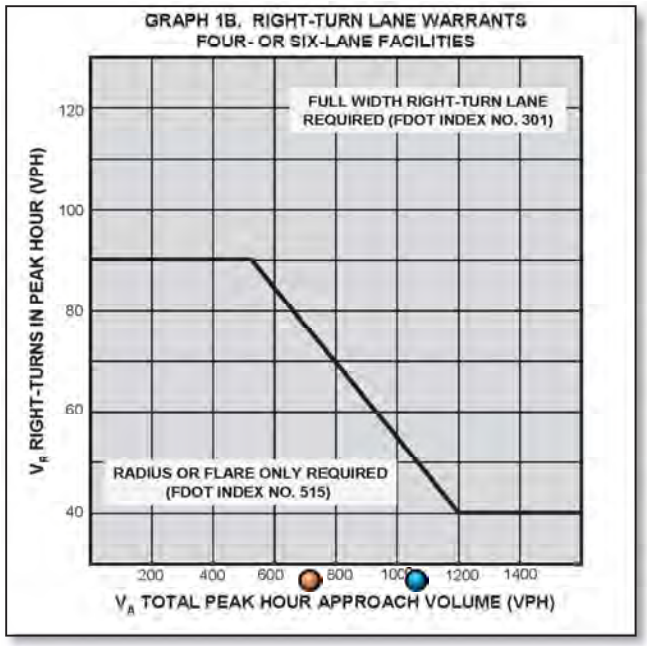
SPRING HILL DEVELOPMENT

TRAFFIC ACCESS ANALYSIS

ATTACHMENT G

SITE ACCESS TURN LANE WARRANT ANALYSIS

LOCATION: Spring Hill Drive & Project Driveway (West)



SOURCE: ADAPTED FROM NCHRP NO. 279

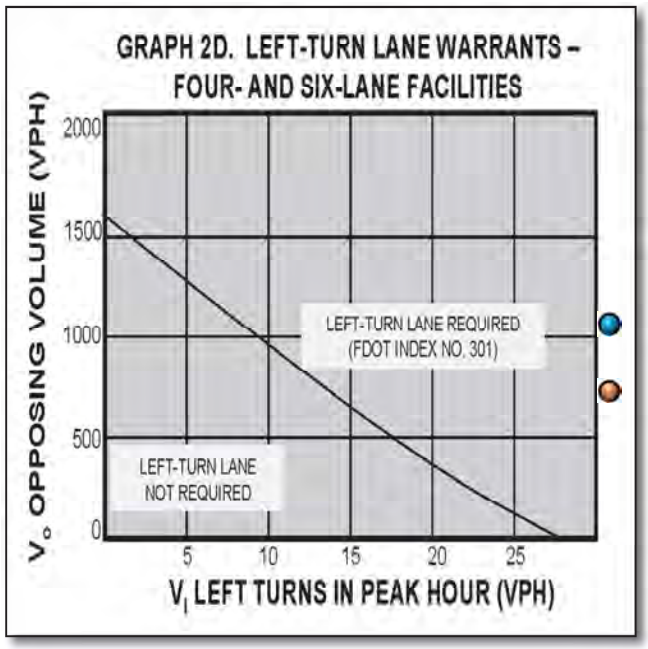
Right Turn Lane Warrant

WESTBOUND RIGHT TURN LANE

AM PEAK HOUR
Right Turn Volume: 16 vph
Approach Volume: 736 vph

PM PEAK HOUR
Right Turn Volume: 14 vph
Arterial Volume: 1056 vph

RESULT: NOT WARRANTED



SOURCE: ADAPTED FROM NCHRP NO. 279

Left Turn Lane Warrant

EASTBOUND LEFT TURN LANE

AM PEAK HOUR
Left Turn Volume: 67 vph
Opposing Volume: 736 vph

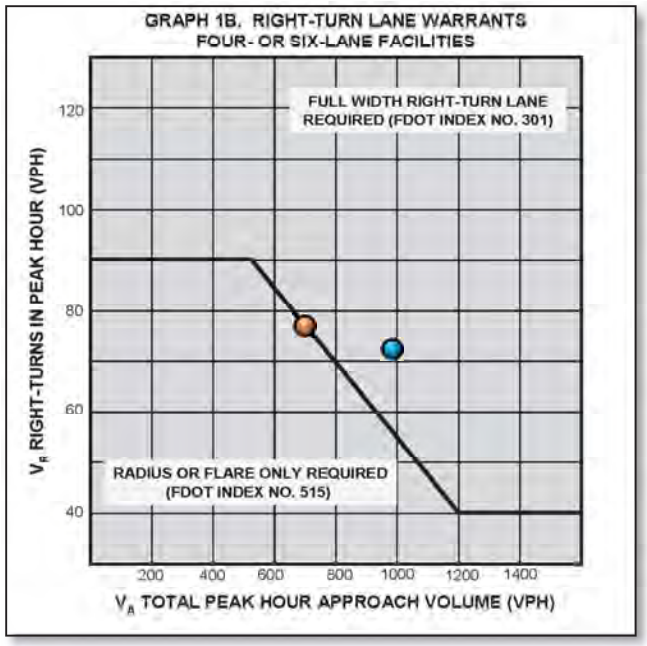
PM PEAK HOUR
Left Turn Volume: 46 vph
Opposing Volume: 1056 vph

RESULT: WARRANTED

SPRING HILL DEVELOPMENT
TURN LANE WARRANT EVALUATION

RAYSOR Transportation Consulting

LOCATION: Spring Hill Drive & Project Driveway (Center)



SOURCE: ADAPTED FROM NCHRP NO. 279

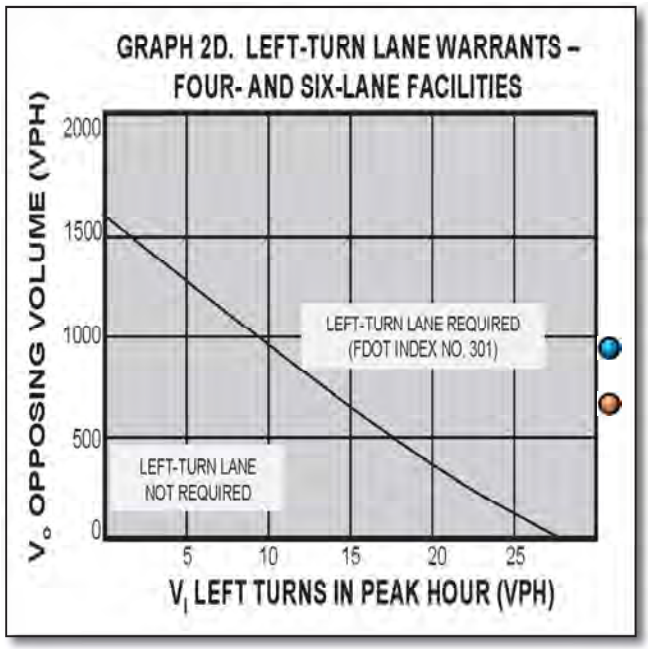
Right Turn Lane Warrant

WESTBOUND RIGHT TURN LANE

AM PEAK HOUR
Right Turn Volume: 78 vph
Approach Volume: 684 vph

PM PEAK HOUR
Right Turn Volume: 72 vph
Arterial Volume: 994 vph

RESULT: WARRANTED



SOURCE: ADAPTED FROM NCHRP NO. 279

Left Turn Lane Warrant

EASTBOUND LEFT TURN LANE

AM PEAK HOUR
Left Turn Volume: 169 vph
Opposing Volume: 684 vph

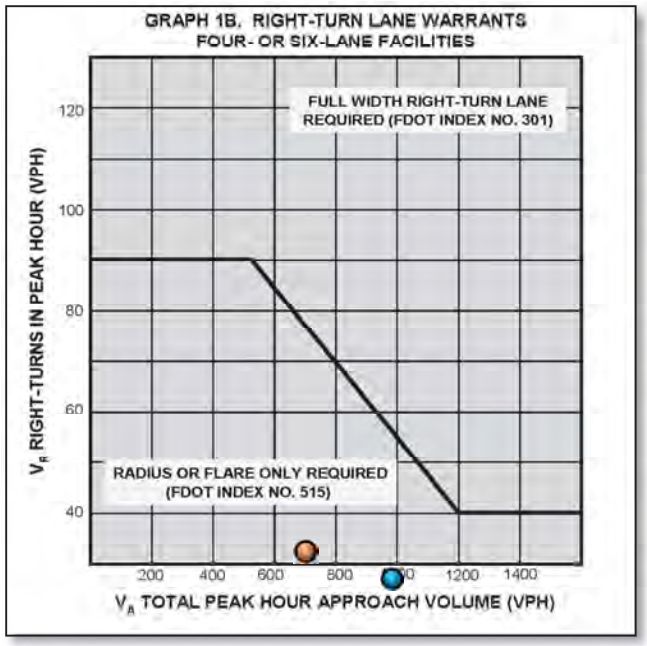
PM PEAK HOUR
Left Turn Volume: 117 vph
Opposing Volume: 994 vph

RESULT: WARRANTED

SPRING HILL DEVELOPMENT
TURN LANE WARRANT EVALUATION

RAYSOR Transportation Consulting

LOCATION: Spring Hill Drive & Project Driveway (East)



SOURCE: ADAPTED FROM NCHRP NO. 279

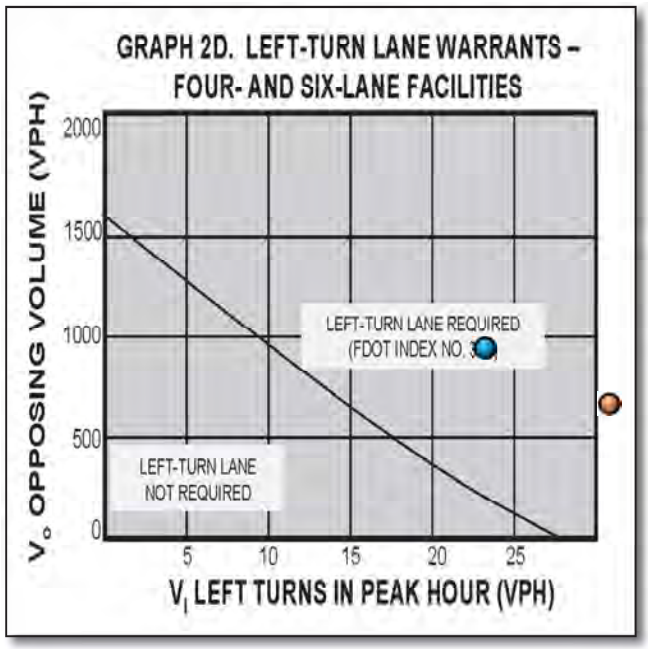
Right Turn Lane Warrant

WESTBOUND RIGHT TURN LANE

AM PEAK HOUR
Right Turn Volume: 32 vph
Approach Volume: 689 vph

PM PEAK HOUR
Right Turn Volume: 28 vph
Arterial Volume: 995 vph

RESULT: NOT WARRANTED



SOURCE: ADAPTED FROM NCHRP NO. 279

Left Turn Lane Warrant

EASTBOUND LEFT TURN LANE

AM PEAK HOUR
Left Turn Volume: 34 vph
Opposing Volume: 689 vph

PM PEAK HOUR
Left Turn Volume: 23 vph
Opposing Volume: 995 vph

RESULT: WARRANTED

SPRING HILL DEVELOPMENT
TURN LANE WARRANT EVALUATION

RAYSOR Transportation Consulting

SPRING HILL DEVELOPMENT

TRAFFIC ACCESS ANALYSIS

ATTACHMENT H

SIGNAL WARRANT EVALUATION
HOURLY TRAFFIC VOLUMES

SPRING HILL DRIVE & CENTER PROJECT DRIVEWAY

SPRING HILL DRIVE & CENTER PROJECT DRIVEWAY

Post-Development Traffic Volumes

HOUR BEGINNING	MAJOR STREET APPROACH TRAFFIC [EB & WB]	MINOR STREET APPROACH TRAFFIC [SB]
12:00 AM	109	21
1:00 AM	70	14
2:00 AM	74	8
3:00 AM	102	10
4:00 AM	181	26
5:00 AM	498	72
6:00 AM	923	106
7:00 AM	1,672	139
8:00 AM	1,431	157
9:00 AM	1,272	151
10:00 AM	1,241	148
11:00 AM	1,352	184
12:00 PM	1,618	214
1:00 PM	1,487	185
2:00 PM	1,665	180
3:00 PM	1,796	180
4:00 PM	1,900	168
5:00 PM	1,863	182
6:00 PM	1,347	149
7:00 PM	888	114
8:00 PM	707	91
9:00 PM	426	69
10:00 PM	247	49
11:00 PM	164	36

SPRING HILL DEVELOPMENT

DAILY NEW EXTERNAL PROJECT TRAFFIC VOLUMES BY HOUR

LAND USE	LIGHT INDUSTRIAL		MINI-WAREHOUSE		COMMERCIAL		FAST FOOD W/DRIVE-THRU		COFFEE SHOP W/DRIVE-THRU		CONVENIENCE & GAS STATION		CAR WASH		TOTAL		SB VOLUMES @ CENTER PROJECT DRIVEWAY	EB & WB VOLUMES @ CENTER PROJECT DRIVEWAY
ITE LUC	110		151		822		934		937		945		948		ALL LAND USES			
NEW EXTERNAL DAILY TRAFFIC	284		174		472		1,254		822		2,442		348					
DIRECTIONAL DAILY NEW EXT.	IN 142	OUT 142	IN 87	OUT 87	IN 236	OUT 236	IN 627	OUT 627	IN 411	OUT 411	IN 1221	OUT 1221	IN 174	OUT 174	IN 2898	OUT 2898		
12:00 - 1:00 AM	0	0	0	0	0	0	5	5	1	1	14	16	0	0	20	22	**16**	**18**
1:00 - 2:00 AM	0	0	0	0	0	0	2	3	0	1	10	11	0	0	12	15	**11**	**9**
2:00 - 3:00 AM	0	0	0	0	0	0	2	2	0	0	8	7	0	0	10	9	**6**	**9**
3:00 - 4:00 AM	0	0	0	0	0	0	2	2	2	1	10	9	0	0	14	12	**8**	**12**
4:00 - 5:00 AM	1	0	0	0	0	0	2	2	8	6	19	18	0	0	30	26	**19**	**27**
5:00 - 6:00 AM	8	1	1	1	1	1	5	4	34	28	38	37	0	0	87	72	**50**	**74**
6:00 - 7:00 AM	10	1	0	0	2	1	14	12	41	37	57	55	0	0	124	106	**75**	**109**
7:00 - 8:00 AM	26	3	3	1	4	3	21	20	42	40	73	72	8	3	177	142	**100**	**154**
8:00 - 9:00 AM	15	6	10	5	7	4	22	21	41	41	80	79	12	8	187	164	**115**	**163**
9:00 - 10:00 AM	10	10	3	6	11	7	21	20	31	35	69	70	14	12	159	160	**112**	**141**
10:00 - 11:00 AM	11	11	8	6	16	12	25	23	29	31	65	65	13	13	167	161	**112**	**147**
11:00 - 12:00 PM	9	12	9	11	19	16	57	48	27	30	71	70	18	16	210	203	**142**	**186**

SPRING HILL DEVELOPMENT

DAILY NEW EXTERNAL PROJECT TRAFFIC VOLUMES BY HOUR

LAND USE	LIGHT INDUSTRIAL		MINI-WAREHOUSE		COMMERCIAL		FAST FOOD W/DRIVE-THRU		COFFEE SHOP W/DRIVE-THRU		CONVENIENCE & GAS STATION		CAR WASH		TOTAL		SB VOLUMES @ CENTER PROJECT DRIVEWAY	EB & WB VOLUMES @ CENTER PROJECT DRIVEWAY
ITE LUC	110		151		822		934		937		945		948		ALL LAND USES			
NEW EXTERNAL DAILY TRAFFIC	284		174		472		1,254		822		2,442		348					
DIRECTIONAL DAILY NEW EXT.	IN 142	OUT 142	IN 87	OUT 87	IN 236	OUT 236	IN 627	OUT 627	IN 411	OUT 411	IN 1221	OUT 1221	IN 174	OUT 174	IN 2898	OUT 2898		
12:00 - 1:00 PM	13	15	8	7	22	20	75	75	22	25	81	81	17	17	238	240	**168**	**213**
1:00 - 2:00 PM	12	10	10	10	20	20	49	55	26	23	75	73	14	15	206	206	**145**	**184**
2:00 - 3:00 PM	10	13	11	10	18	19	37	41	21	23	74	76	17	18	188	200	**140**	**170**
3:00 - 4:00 PM	9	16	5	6	18	19	36	36	24	22	83	83	17	18	192	200	**140**	**171**
4:00 - 5:00 PM	6	15	9	6	19	20	37	35	19	17	77	80	15	16	182	189	**132**	**162**
5:00 - 6:00 PM	2	24	5	13	20	20	44	41	11	14	82	84	12	13	176	209	**146**	**160**
6:00 - 7:00 PM	0	3	3	5	17	18	46	46	11	13	64	66	13	15	154	166	**117**	**138**
7:00 - 8:00 PM	0	0	1	1	15	16	40	42	9	9	48	49	3	9	116	126	**89**	**104**
8:00 - 9:00 PM	0	0	1	1	10	14	35	37	5	8	41	41	1	1	93	102	**72**	**84**
9:00 - 10:00 PM	0	0	0	0	4	10	26	29	5	5	34	33	0	0	69	77	**54**	**63**
10:00 - 11:00 PM	0	0	0	0	8	10	16	18	2	3	26	25	0	0	52	56	**39**	**46**
11:00 - 12:00 AM	0	0	0	0	4	5	9	11	0	0	23	24	0	0	36	40	**28**	**32**

SPRING HILL DEVELOPMENT

DAILY PASS-BY PROJECT TRAFFIC VOLUMES BY HOUR

LAND USE	LIGHT INDUSTRIAL		MINI-WAREHOUSE		COMMERCIAL		FAST FOOD W/DRIVE-THRU		COFFEE SHOP W/DRIVE-THRU		CONVENIENCE & GAS STATION		CAR WASH		TOTAL		SB VOLUMES @ CENTER PROJECT DRIVEWAY	EB & WB VOLUMES @ CENTER PROJECT DRIVEWAY
ITE LUC	110		151		822		934		937		945		948		ALL LAND USES			
PASS-BY DAILY TRAFFIC	0		0		50		240		460		922		106					
DIRECTIONAL DAILY PASS-BY	IN 0	OUT 0	IN 0	OUT 0	IN 25	OUT 25	IN 120	OUT 120	IN 230	OUT 230	IN 461	OUT 461	IN 53	OUT 53	IN 889	OUT 889		
12:00 - 1:00 AM	0	0	0	0	0	0	1	1	0	0	5	6	0	0	6	7	**5**	**4**
1:00 - 2:00 AM	0	0	0	0	0	0	0	1	0	0	4	4	0	0	4	5	**3**	**3**
2:00 - 3:00 AM	0	0	0	0	0	0	0	0	0	0	3	3	0	0	3	3	**2**	**2**
3:00 - 4:00 AM	0	0	0	0	0	0	0	0	1	0	4	3	0	0	5	3	**2**	**3**
4:00 - 5:00 AM	0	0	0	0	0	0	0	0	4	3	7	7	0	0	11	10	**7**	**7**
5:00 - 6:00 AM	0	0	0	0	0	0	1	1	19	16	14	14	0	0	34	31	**22**	**22**
6:00 - 7:00 AM	0	0	0	0	0	0	3	2	23	20	22	21	0	0	48	43	**31**	**30**
7:00 - 8:00 AM	0	0	0	0	0	0	4	4	24	23	28	27	3	1	59	55	**39**	**37**
8:00 - 9:00 AM	0	0	0	0	1	0	4	4	23	23	30	30	4	2	62	59	**42**	**39**
9:00 - 10:00 AM	0	0	0	0	1	1	4	4	18	19	26	26	4	4	53	54	**39**	**33**
10:00 - 11:00 AM	0	0	0	0	2	1	5	4	16	18	24	24	4	4	51	51	**36**	**32**
11:00 - 12:00 PM	0	0	0	0	2	2	11	9	15	17	27	26	6	5	61	59	**42**	**38**

SPRING HILL DEVELOPMENT

DAILY PASS-BY PROJECT TRAFFIC VOLUMES BY HOUR

LAND USE	LIGHT INDUSTRIAL		MINI-WAREHOUSE		COMMERCIAL		FAST FOOD W/DRIVE-THRU		COFFEE SHOP W/DRIVE-THRU		CONVENIENCE & GAS STATION		CAR WASH		TOTAL		SB VOLUMES @ CENTER PROJECT DRIVEWAY	EB & WB VOLUMES @ CENTER PROJECT DRIVEWAY
ITE LUC	110		151		822		934		937		945		948		ALL LAND USES			
PASS-BY DAILY TRAFFIC	0		0		50		240		460		922		106					
DIRECTIONAL DAILY PASS-BY	IN 0	OUT 0	IN 0	OUT 0	IN 25	OUT 25	IN 120	OUT 120	IN 230	OUT 230	IN 461	OUT 461	IN 53	OUT 53	IN 889	OUT 889		
12:00 - 1:00 PM	0	0	0	0	2	2	14	14	12	14	30	30	5	5	63	65	**46**	**40**
1:00 - 2:00 PM	0	0	0	0	2	2	9	10	14	13	28	27	4	5	57	57	**40**	**36**
2:00 - 3:00 PM	0	0	0	0	2	2	7	8	12	13	28	29	5	5	54	57	**40**	**34**
3:00 - 4:00 PM	0	0	0	0	2	2	7	7	13	12	31	31	5	6	58	58	**40**	**36**
4:00 - 5:00 PM	0	0	0	0	2	2	7	7	11	10	29	30	4	5	53	54	**36**	**33**
5:00 - 6:00 PM	0	0	0	0	2	2	8	8	6	8	31	32	4	4	51	54	**36**	**32**
6:00 - 7:00 PM	0	0	0	0	2	2	9	9	6	7	24	25	4	5	45	48	**32**	**28**
7:00 - 8:00 PM	0	0	0	0	2	2	8	8	5	5	18	19	1	3	34	37	**25**	**22**
8:00 - 9:00 PM	0	0	0	0	1	2	7	7	3	4	16	16	0	0	27	29	**19**	**17**
9:00 - 10:00 PM	0	0	0	0	0	1	5	6	3	3	13	12	0	0	21	22	**15**	**13**
10:00 - 11:00 PM	0	0	0	0	1	1	3	3	1	1	10	10	0	0	15	15	**10**	**10**
11:00 - 12:00 AM	0	0	0	0	0	1	2	2	0	0	9	9	0	0	11	12	**8**	**7**

SPRING HILL DEVELOPMENT

DAILY NEW EXTERNAL PROJECT TRAFFIC VOLUMES BY HOUR

LAND USE	LIGHT INDUSTRIAL		MINI-WAREHOUSE		COMMERCIAL		FAST FOOD W/DRIVE-THRU		COFFEE SHOP W/DRIVE-THRU		CONVENIENCE & GAS STATION		CAR WASH		TOTAL		SB VOLUMES @ CENTER PROJECT DRIVEWAY	EB & WB VOLUMES @ CENTER PROJECT DRIVEWAY
ITE LUC	110		151		822		934		937		945		948		ALL LAND USES			
TOTAL DAILY TRAFFIC	284		174		522		1,494		1,282		3,364		454					
DIRECTIONAL DAILY TOTAL	IN 142	OUT 142	IN 87	OUT 87	IN 261	OUT 261	IN 747	OUT 747	IN 641	OUT 641	IN 1682	OUT 1682	IN 227	OUT 227	IN 3787	OUT 3787		
12:00 - 1:00 AM	0	0	0	0	0	0	6	6	1	1	19	22	0	0	26	29	**21**	**22**
1:00 - 2:00 AM	0	0	0	0	0	0	2	4	0	1	14	15	0	0	16	20	**14**	**12**
2:00 - 3:00 AM	0	0	0	0	0	0	2	2	0	0	11	10	0	0	13	12	**8**	**11**
3:00 - 4:00 AM	0	0	0	0	0	0	2	2	3	1	14	12	0	0	19	15	**10**	**15**
4:00 - 5:00 AM	1	0	0	0	0	0	2	2	12	9	26	25	0	0	41	36	**26**	**34**
5:00 - 6:00 AM	8	1	1	1	1	1	6	5	53	44	52	51	0	0	121	103	**72**	**96**
6:00 - 7:00 AM	10	1	0	0	2	1	17	14	64	57	79	76	0	0	172	149	**106**	**139**
7:00 - 8:00 AM	26	3	3	1	4	3	25	24	66	63	101	99	11	4	236	197	**139**	**191**
8:00 - 9:00 AM	15	6	10	5	8	4	26	25	64	64	110	109	16	10	249	223	**157**	**202**
9:00 - 10:00 AM	10	10	3	6	12	8	25	24	49	54	95	96	18	16	212	214	**151**	**174**
10:00 - 11:00 AM	11	11	8	6	18	13	30	27	45	49	89	89	17	17	218	212	**148**	**179**
11:00 - 12:00 PM	9	12	9	11	21	18	68	57	42	47	98	96	24	21	271	262	**184**	**224**

SPRING HILL DEVELOPMENT

DAILY NEW EXTERNAL PROJECT TRAFFIC VOLUMES BY HOUR

LAND USE	LIGHT INDUSTRIAL		MINI-WAREHOUSE		COMMERCIAL		FAST FOOD W/DRIVE-THRU		COFFEE SHOP W/DRIVE-THRU		CONVENIENCE & GAS STATION		CAR WASH		TOTAL		SB VOLUMES @ CENTER PROJECT DRIVEWAY	EB & WB VOLUMES @ CENTER PROJECT DRIVEWAY
ITE LUC	110		151		822		934		937		945		948		ALL LAND USES			
TOTAL DAILY TRAFFIC	284		174		522		1,494		1,282		3,364		454					
DIRECTIONAL DAILY TOTAL	IN 142	OUT 142	IN 87	OUT 87	IN 261	OUT 261	IN 747	OUT 747	IN 641	OUT 641	IN 1682	OUT 1682	IN 227	OUT 227	IN 3787	OUT 3787		
12:00 - 1:00 PM	13	15	8	7	24	22	89	89	34	39	111	111	22	22	301	305	**214**	**253**
1:00 - 2:00 PM	12	10	10	10	22	22	58	65	40	36	103	100	18	20	263	263	**185**	**220**
2:00 - 3:00 PM	10	13	11	10	20	21	44	49	33	36	102	105	22	23	242	257	**180**	**204**
3:00 - 4:00 PM	9	16	5	6	20	21	43	43	37	34	114	114	22	24	250	258	**180**	**207**
4:00 - 5:00 PM	6	15	9	6	21	22	44	42	30	27	106	110	19	21	235	243	**168**	**195**
5:00 - 6:00 PM	2	24	5	13	22	22	52	49	17	22	113	116	16	17	227	263	**182**	**192**
6:00 - 7:00 PM	0	3	3	5	19	20	55	55	17	20	88	91	17	20	199	214	**149**	**166**
7:00 - 8:00 PM	0	0	1	1	17	18	48	50	14	14	66	68	4	12	150	163	**114**	**126**
8:00 - 9:00 PM	0	0	1	1	11	16	42	44	8	12	57	57	1	1	120	131	**91**	**101**
9:00 - 10:00 PM	0	0	0	0	4	11	31	35	8	8	47	45	0	0	90	99	**69**	**76**
10:00 - 11:00 PM	0	0	0	0	9	11	19	21	3	4	36	35	0	0	67	71	**49**	**56**
11:00 - 12:00 AM	0	0	0	0	4	6	11	13	0	0	32	33	0	0	47	52	**36**	**39**

DAILY SPRING HILL DRIVE TRAFFIC VOLUMES BY HOUR					
FDOT COUNT STATION	08-2017			PERCENT of DAILY	2022 VOLUME ESTIMATES
COUNT STATION LOCATION	SPRING HILL DRIVE ADJACENT TO PROJECT SITE				AADT 19,900
COUNT DATE	10/27/20	10/28/20	TOTAL		
12:00 - 1:00 AM	101	80	181	0.44%	87
1:00 - 2:00 AM	73	48	121	0.29%	58
2:00 - 3:00 AM	67	65	132	0.32%	63
3:00 - 4:00 AM	83	99	182	0.44%	87
4:00 - 5:00 AM	151	157	308	0.74%	147
5:00 - 6:00 AM	410	431	841	2.02%	402
6:00 - 7:00 AM	825	814	1,639	3.94%	784
7:00 - 8:00 AM	1,532	1,563	3,095	7.44%	1481
8:00 - 9:00 AM	1,271	1,297	2,568	6.18%	1229
9:00 - 10:00 AM	1,142	1,152	2,294	5.52%	1098
10:00 - 11:00 AM	1,095	1,124	2,219	5.34%	1062
11:00 - 12:00 PM	1,190	1,168	2,358	5.67%	1128
12:00 - 1:00 PM	1,434	1,418	2,852	6.86%	1365
1:00 - 2:00 PM	1,325	1,323	2,648	6.37%	1267
2:00 - 3:00 PM	1,506	1,546	3,052	7.34%	1461
3:00 - 4:00 PM	1,667	1,654	3,321	7.99%	1589
4:00 - 5:00 PM	1,776	1,787	3,563	8.57%	1705
5:00 - 6:00 PM	1,728	1,764	3,492	8.40%	1671
6:00 - 7:00 PM	1,265	1,203	2,468	5.93%	1181
7:00 - 8:00 PM	790	802	1,592	3.83%	762
8:00 - 9:00 PM	646	621	1,267	3.05%	606
9:00 - 10:00 PM	350	381	731	1.76%	350
10:00 - 11:00 PM	187	212	399	0.96%	191
11:00 - 12:00 AM	133	128	261	0.63%	125
TOTALS	**20,747**	**20,837**	**41,584**	**100%**	**19,899**

DAILY SPRING HILL DRIVE TRAFFIC VOLUMES BY HOUR			
TIME PERIOD	2022 TRAFFIC VOLUME ESTIMATES	PROJECT GENERATED TRAFFIC VOLUMES	POST-DEVELOPMENT TRAFFIC VOLUMES
12:00 - 1:00 AM	87	22	109
1:00 - 2:00 AM	58	12	70
2:00 - 3:00 AM	63	11	74
3:00 - 4:00 AM	87	15	102
4:00 - 5:00 AM	147	34	181
5:00 - 6:00 AM	402	96	498
6:00 - 7:00 AM	784	139	923
7:00 - 8:00 AM	1,481	191	1672
8:00 - 9:00 AM	1,229	202	1431
9:00 - 10:00 AM	1,098	174	1272
10:00 - 11:00 AM	1,062	179	1241
11:00 - 12:00 PM	1,128	224	1352
12:00 - 1:00 PM	1,365	253	1618
1:00 - 2:00 PM	1,267	220	1487
2:00 - 3:00 PM	1,461	204	1665
3:00 - 4:00 PM	1,589	207	1796
4:00 - 5:00 PM	1,705	195	1900
5:00 - 6:00 PM	1,671	192	1863
6:00 - 7:00 PM	1,181	166	1347
7:00 - 8:00 PM	762	126	888
8:00 - 9:00 PM	606	101	707
9:00 - 10:00 PM	350	76	426
10:00 - 11:00 PM	191	56	247
11:00 - 12:00 AM	125	39	164
TOTALS	**19,899**	**3,134**	**23,033**