



September 25, 2023

Mr. Dirk A. Danley, Jr.
Principal Planner
Lee County Department of Community Development
1500 Monroe Street
Fort Myers, FL 33901

Re: River Hall
DCI2022-00026 – Major PD

Dear Mr. Danley:

Please accept the following information in response to your correspondence dated August 24, 2023 regarding the above referenced project. The following responses are provided in order with respect to the County's comments.

Planning Review:

Comment 1:

Please update the table titled "Proposed Density Summary" on page three of the Request Statement and Lee Plan Compliance exhibit in order to reflect the updated density calculation of CPA2021-00016.

Response 1:

Please see the revised Request Statement provided with this resubmittal.

Legal Description Review:

Comment 1:

Please provide a boundary survey in accordance with the requirements of Lee County LDC §34-202(a)(6). The boundary survey is missing state plane coordinates for the points of beginning (POB). The legal description sketches do contain coordinates for the POBs except for the "Less and Except Parcel 1."

Response 1:

Please see revised Boundary Survey provided as part of this resubmittal.

TIS Review:

Comment 1:

In reference to the LOS (Level of Service) service volume standard delineated in Exhibit 6 for distinct roadway segments, there have been identified inaccuracies in the reported LOS for specific roadway segments, as detailed below:

- *River Hall Existing Traffic Condition – Roadway Level of Service (pertaining to county-maintained facilities: Buckingham Road, N. River Road)*
- *River Hall Future Traffic Condition – Proposed Amendment Roadway Level of Service (pertaining to SR 31: spanning from SR 80 to SR 78)*

Mr. Dirk A. Danley, Jr. - Lee County DCD (Zoning)
DCI2022-00026 – Major PD
September 25, 2023

In light of these discrepancies, it is recommended that a comprehensive review and rectification of the Level of Service assessments be conducted for disparate roadway segments, aligning with the prescribed LOS service volume standard elucidated in Exhibit 6.

Responses 1:

Please see the revised TIS provided as part of this resubmittal

The following documents are provided as part of this resubmittal for review:

1. Updated Request Statement
2. Revised Boundary Survey
3. Revised Traffic Impact Statement

If you should have any questions or require additional information, please advise.

Sincerely,

BARRACO AND ASSOCIATES, INC.



Carl A. Barraco, P.E.
President

CAB/cmh
23898

Enclosure
cc: Grady Miars – GreenPointe Communities

RIVER HALL RPD/CPD

REZONING Request Statement & Lee Plan Compliance

BACKGROUND AND REQUEST

The Subject Property is located in Alva, Florida (Unincorporated Lee County), southeast of the intersection of Buckingham Road and State Road 80 (See Figure 1.) and consists of ± 172.67 acres encompassing six (6) parcels, further referenced as the Subject Property. The proposed zoning request runs concurrently with the proposed River Hall Map Amendment (CPA2021-00016).

The proposed rezoning seeks to add 9.98 acres to the River Hall RPD and increase density to allow 3,244 units, for a total of 1.6 units per acre on 1,988 acres. The CPD is proposed to 5.55 acres, with a maximum of 15,000 sf of commercial uses.



Figure 1. Subject Property Location Map

HISTORY

1999 - The River Hall Project, which refers to the 1,798 acres that make up the entire development, was rezoned from AG-2 to RPD to allow 1,598 units through zoning resolution Z-99-056.

- Project size: 1,798 acres
- All land Rural FLU

2005 - Followed by a rezone from AG-2/RPD to RPD/CPD to allow 1,999 units on 1,978 acres through zoning resolution Z-05-2015.

- Project size: 1,978 acres
- All land Rural FLU

2015 - The project then underwent a rezoning and Comprehensive Plan Amendment (CPA) to increase density to allow 3,244 units through Z-15-003 and CPA2012-00001.

- Project size unchanged at 1,978 acres
- 1,064 acres of Rural and 223 acres of Wetlands converted to 153 acres of Conservation Lands Wetlands, 264 acres of Conservation Lands Uplands, and 870 acres of Sub-Outlying Suburban (SOS)
- Created irregular, isolated SOS shapes in the Future Land Use Map (FLUM)

RIVER HALL II - 2022

Shown on the MCP as “River Hall II – 2022”, the Subject Property is located in three unplatted areas of River Hall, totaling 172.67 acres:

Rezone Area 1 – Southwest of River Hall Project Entrance – ±9.98 Acres

- Proposed to be 100% preserved
- Located on west side of River Hall Parkway, undeveloped
- Current FLU: Suburban / Wetlands
- Current zoning: AG-2
- Proposed zoning: RPD
- Proposed use: preserve

Rezone Area 2 – Southeast of River Hall Project Entrance – ±22.74 Acres

- Located on east side of River Hall Parkway, undeveloped
- Current FLU: SOS
- Proposed FLU: Suburban (CPA2021-00016)
- Zoning: CPD & RPD
- Proposed use: Commercial and/or residential

Rezone Area 3 – Southeastern portion of River Hall – ±139.95 acres

- Proposed density cap of 420 units (140 ac x 3 du/ac)
- Located east of the platted portion of Hampton Lakes, undeveloped
- Current FLU: SOS
- Proposed FLU: Outlying Suburban (CPA2021-00016)
- Zoning: RPD
- Proposed use: Residential

Approval of this rezoning will allow a total of 3,244 units for River Hall. The proposed increase in density and acreage equates to 1.6 dwelling units per acre for the overall River Hall Project, an increase of 0.2 units per acre when compared to the current approval.

As future portions of the report outline, the allowable density by Future Land Use is more than the proposed 3,244 units. As the table below shows, the proposed density was determined by

adding the approved density with the density increase proposed by the companion Comprehensive Plan Amendment, and incorporating the added 10-acre parcel.

Proposed Density Summary	
Current Density	2,695 units
CPA2021-00016 Additional Density	489 units
10-ac Parcel	60 units
REQUEST:	3,244 units

ADJACENT LAND USE AND ZONING

The adjacent properties to the north, south, east, and west of the three Subject Property locations are all within the Urban Community, Suburban, Outlying Suburban, Rural, and Wetlands FLUM categories, based on the concurrent CPA's proposed FLUM, as shown in tables 1.a, 1.b, and 1.c.

North - To the north of the River Hall Project, and abutting the Subject Property, are properties within the Rural FLU category. The River Hall Project also abuts Commercial FLU just north of Palm Beach Boulevard, at the entrance to the River Hall Community.

South - To the south of the River Hall Project, including the canal, are properties within the Urban Community category, which allows a standard density range of 1 du/ac to 6 du/ac under Policy 1.1.4. The Urban Community FLU also allows a maximum total density of 10 du/ac, as well as the potential to increase to 15 du/ac utilizing Greater Pine Island Transfer of Development Units. In addition to the River Hall Project, the Urban Community FLU also abuts the southern boundary of Rezone Area 3.

East - To the east of the River Hall Project are the Rural and Urban Community FLU categories. A LAMSID canal abuts the southern portion of the River Hall Project's eastern boundary, designated as Urban Community, followed by Hickey Creek Mitigation Park (Conservation lands). The northern portion of the eastern boundary abuts a Rural FLU, including a portion of the Subject Property in Rezone Area 2.

West - To the west of the River Hall Project, along the northern portion of the western boundary line, are lands designated Suburban, which allows a standard density range of 1 du/ac to 6 du/ac under Policy 1.1.5, as well as the potential to increase to 8 du/ac utilizing Greater Pine Island Transfer of Development Units. The southern portion of the western boundary line abuts two RPD developments under the Outlying Suburban FLUM Category, which allows up to 3 du/ac.

COMPATIBILITY WITH SURROUNDING PROPERTY

The proposed rezoning is compatible with the existing and planned uses in the surrounding area. Being located within and/or completely surrounded by for the River Hall Project, the Subject Property's specified locations mostly abut land within the River Hall RPD/CPD, designated as Suburban, Outlying Suburban, Rural, and Wetlands on the CPA's proposed FLUM. The perimeter of the River Hall Project also abuts Outlying Suburban to the west, Urban Community to the south, and Rural to the east. Please refer to the tables below, which

inventory in further detail the Subject Property's surrounding Future Land Use categories, zoning and existing land uses.

TABLE 1.a – Rezone Area 1

	Existing Future Land Use	Zoning District	Existing Uses/Notes
NORTH	Suburban, Rural, Wetlands	RPD:CPD ^(RH)	Vacant Commercial, indigenous open space, lake
SOUTH	Suburban, Rural, Wetlands	RPD:CPD ^(RH)	Indigenous open space
EAST	Suburban, Rural, Wetlands	RPD:CPD ^(RH)	Indigenous open space, sales center
WEST	Suburban, Wetlands	RPD:CPD ^(RH)	Residential, lake, indigenous open space

(RH) – River Hall RPD/CPD

(OFF) – Offsite

TABLE 1.b - Rezone Area 2

	Existing Future Land Use	Zoning District	Existing Uses/Notes
NORTH	Rural	RPD:CPD ^(RH)	Vacant Commercial, indigenous open space, undeveloped
SOUTH	Rural	RPD:CPD ^(RH)	Elementary School, indigenous open space
EAST	Rural	RPD:CPD ^(RH) / AG-2 ^(OFF)	Residential, indigenous open space
WEST	Suburban, Rural	RPD:CPD ^(RH)	ROW, sales center

(RH) – River Hall RPD/CPD

(OFF) – Offsite

TABLE 1.c – Rezone Area 3

	Existing Future Land Use	Zoning District	Existing Uses/Notes
NORTH	Outlying Suburban, Rural	RPD ^(RH)	Residential, lake
SOUTH	Urban Community Rural & Wetlands	RS:1 ^(OFF) RPD ^(RH)	Vacant residential, residential, conservation easements
EAST	Rural, Wetlands	RPD ^(RH)	Conservation easements, lake, residential
WEST	Outlying Suburban	RPD ^(RH)	Residential

(RH) – River Hall RPD/CPD

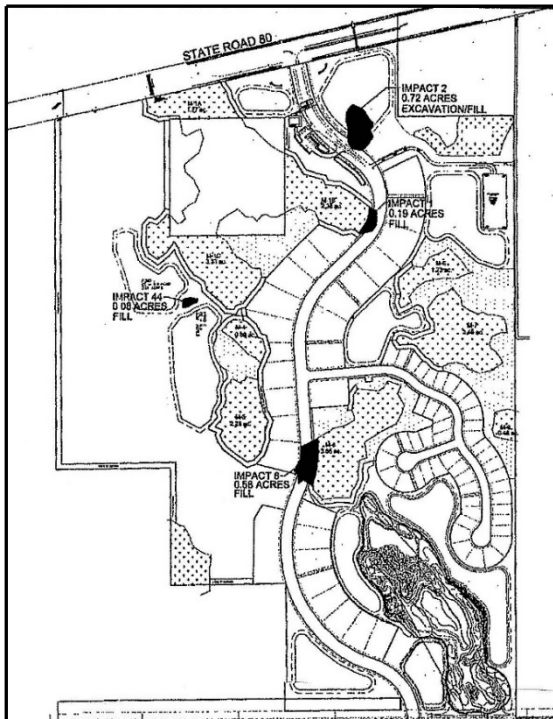
(OFF) – Offsite

The proposed uses are compatible with the surrounding development. Rezone Area 1 is entirely preserve. The uses proposed in Rezone Areas 2 and 3 are unchanged from the previous approval. Rezone Areas 2 and 3 are land areas that have been included within River Hall since the first rezoning in 1999, deemed compatible and consistent with the surrounding properties through 3 public hearing processes. Acknowledging a potential for incompatibility near the project entry, additional provisions are proposed where density increase is proposed by offsite Rural Future Land Use. As noted on the MCP, if multifamily height exceeds 35' (allowed height of abutting rural/AG land), principal building setback will be increased to 150-feet. Additionally, to ensure a parking lot isn't constructed in the separation to rural land, a transition lake is required. Notes have been added to the eastern boundary of the CPD outlining these requirements.

WETLAND IMPACTS

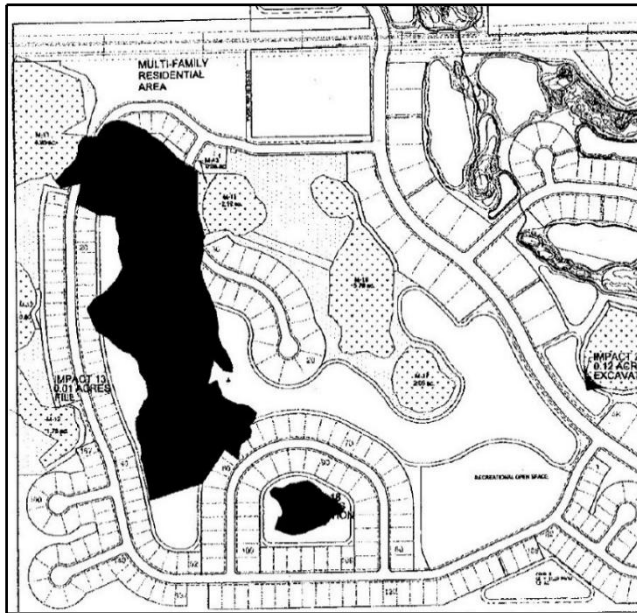
The wetland impacts have been calculated using two approved ERP Permits. Wetland impacts were permitted in 2001 through ERP Permit No. 36-04006-P (Application No. 9910123) and

modified in 2006 through ERP Permit No. 36-04006-P (Application No. 051122-18). The modified application applied only to land south of the powerline easement. As such, the impacts north of the powerline easement are calculated from the 2001 permit through four wetland impact areas. As shown on the "Impact Plan" prepared by Consul-tech Engineering, 1.57 acres of wetland impacts have been permitted north of the powerline easement. Please see the table and image below and page EN-3/EN-21 included within the enclosed Environmental Resource Permit Staff Review Summary for Permit No. 36-04006-P. As shown in the table below, one wetland impact area was in the Suburban Future Land Use category, with the remaining wetland impacts in the Rural Future Land Use category.



Wetland Impacts North of Powerlines		
Impact ID #	Size	FLU
1, 2, 8	1.49 ac	Rural
44	0.08 ac	Suburban
TOTAL	1.57 ac	

South of the powerline easement, 62.67 acres of wetland impacts are permitted as modified through ERP No. 36-04006-P (see page 14 of 27 of the enclosed permit from SFWMD). As shown in the table below, only one area was in the Suburban Future Land Use category.



Wetland Impacts South of Powerlines		
Impact ID #	Size	FLU
19 Areas	61.25 ac	Rural
19	1.42 ac	Suburban
TOTAL	62.67 ac	

For a comprehensive map of River Hall wetlands (impacted and preserved) and FLU, please see enclosed "Allowable Density Exhibit." Wetland summary is as follows:

Wetland Summary	
Preserved Rural	168.06 ac
Preserved Suburban	21.14 ac
Impacted (Sub=1.50, Rural=62.74)	64.54 ac
TOTAL:	253.74 ac

FUTURE LAND USE ELEMENT

Upon approval of the concurrent River Hall CPA, the ±172.67 acre Subject Property will have FLU designations of Suburban, Outlying Suburban, Rural, and Wetland. The proposed rezoning complies with the maximum densities permitted in each future land use category, as proposed by the concurrent CPA, which are associated with Policies 1.1.5, 1.1.6, 1.4.1, and Objective 1.5. The requested density of 3,244 units is less than the allowable density of 3,385 units.

The proposed rezoning is consistent with Objective 1.1 (Future Urban and Suburban Areas) and corresponding Policies 1.1.5 and 1.1.6 for Suburban and Outlying Suburban future land use categories, based on approval of the companion CPA's proposed map amendment to the Lee Plan. This rezoning application will ensure the Subject Property is developed at the density approved by the concurrent CPA request. The proposed increase of 549 dwelling units will allow for buffers, open space, recreational/amenities, and increased flexibility to allow for continued protection of environmentally sensitive lands. The proposed density is compatible and consistent with existing densities found in residential developments adjacent to the Subject Property east of Buckingham Road.

Allowable Density - with 10-ac parcel added - Commercial excluded from Suburban - all preserved wetlands per Policy 124.1.1 - impacted wetlands at 1 du/20 ac - FLU per CPA2021-00016 as revised April 2023				
FLU	AC	Less CPD	Rate	Allowable Density
Suburban	98.48	5.55 (= 92.93)	6	557.58
Wetlands - preserved at Suburban rate	21.14		6	126.84
Outlying Suburban	308.77		3	926.31
Sub-Outlying Suburban	275.59		2	551.18
Rural	1051.80		1	1051.80
Wetlands - preserved at Rural rate	168.06		1	168.06
Impacted Wetlands	64.54		0.05	3.23
TOTAL:	1988.38			3385.00

Allowable Density: 3385 units

LEE PLAN – VISION STATEMENT

The Fort Myers Shores vision statement provides an overview of the existing conditions and unique characteristics of the Fort Myers Shores Community. Although encompassed by residential single-family homes in a more rural character, the community is anticipated to grow substantially, with majority of the land designated as Suburban, Outlying Suburban, Rural or Urban Community, and planned commercial nodes for higher intensity development. The vision for this plan is to allow the Fort Myers Shores Community to continue to develop a commercial/employment center for the adjacent communities.

The Subject Property is located within the Fort Myers Shores Community, as shown on Lee Plan Map 1-B. Listed as Goal 21 within the Lee Plan (Caloosahatchee Shores Community Plan), the intent for the area outlines the need to “protect the existing character, natural resources and quality of life in the Caloosahatchee Shores Community Plan area, while promoting new development, redevelopment and maintaining a more rural identity for the neighborhoods east of I-75 by establishing minimum aesthetic requirements, planning the location and intensity of future commercial and residential uses, and providing incentives for redevelopment, mixed use development and pedestrian safe environments.” The requested rezone will reinforce this goal by promoting an increase in new residential development in a location already planned for future residential.

In line with the Fort Myers Shores Community’s intent to support continued development of a commercial/employment center, the additional rooftops proposed by this request will help aid future commercial development. Viability of future commercial development is often dependent on the availability of surrounding residential homesites. As such, the proposed additional dwelling units may play a vital role in the timing associated with the future commercial development within the Fort Myers Shores Planning Community. The proposed increase of 549 dwelling units mirrors the additional density allowed by the concurrent CPA’s proposed FLUM changes, which is consistent with this vision. The proposed rezoning areas represent a location where slightly greater density is compatible with the surrounding uses and where existing infrastructure can support the proposed project.

Adequate urban services exist to justify and support future development under the proposed request without negatively impacting the surrounding natural resources or burdening the surrounding infrastructure and public services. Under this zoning application for the River Hall

Project, the intended development plan will create a residential community consisting of 549 units more than the currently approved River Hall RPD. Buffering, open space/preserve areas, environmental stewardship, and recreational areas are incorporated within the current development and can be modified, if necessary, to accommodate the additional density, providing sufficient facilities and ensuring compatibility with the surrounding properties and consistency with the objectives provided in the Fort Myers Shores Community vision.

GROWTH MANAGEMENT

The request is consistent with Goal 2, Objective 2.1 (DEVELOPMENT LOCATION), and corresponding applicable Policies 2.1.1 and 2.1.2, which outline the intent to promote contiguous and compact growth patterns, contain urban sprawl, and prevent development patterns where large tracts of land are by-passed in favor of development more distant from services and existing communities. Upon approval of the concurrent CPA, the acreage included in this request is within the Suburban, Outlying Suburban, Rural and Wetland FLU categories, and is located where adequate urban services not only exist, but are in place for development to proceed without negatively affecting natural resources or requiring additional infrastructure.

The existing urban services support the appropriateness for the proposed density increase, and indicate the residential development intensification in this region, supported by the approved CPAs/Rezoning to increase density on properties adjacent to the River Hall Project. Subsequently, the proposed density increase represents a logical extension of existing development patterns and an efficient use of public infrastructure. The developments that have recently went through a CPA and rezoning are located to the west of the River Hall Project.

The northern parcels included in this request (Rezone Areas 1 and 2) abut land within the Suburban FLU designation to the west. Its location adjacent to the Suburban FLU, access to urban services, and proximity to State Road 80 and future commercial substantiates the appropriateness of the increased density proposed by this request. In addition, the timing of this request is appropriate given the need for additional dwelling units in this area based on the continued population growth trend in Southwest Florida and the limited housing availability for both renters and buyers.

The proposed rezoning will not result in urban sprawl, which is defined in the Lee Plan as “The uncontrolled, premature, or untimely expansion and spreading out of urban levels of density or intensity into out-lying, non-urban areas.” Conversely, the proposed rezoning will help to prevent leap-frogging of density into out-lying non-urban areas by permitting the additional density in a logical location as an extension of existing development patterns within the Community. The availability and current existence of urban services provides supporting evidence for development to take place in the proposed rezone areas, which will utilize and adhere to the strict regulations associated with the planned development process to deliver a quality product, which closely aligns with the needs and desires of the Fort Myers Shores Community.

The request is consistent with Objective 2.2 (DEVELOPMENT TIMING), which outlines the intent to direct new growth to future urban areas where adequate public facilities exist or are assured and where compact and contiguous development patterns can be created. The existing and future residential uses surrounding the property, and adequate urban services justify the timing of this rezoning, which will allow for medium to low-density development that will help fulfill housing needs in Lee County. The attached letters of determination of existing support facilities (Fire, EMS, Law Enforcement, Solid Waste, Mass Transit, Schools) further emphasize the adequacy of timing

and support in place for the purposed development. Please note that the attached letters of determination are associated with the companion CPA and are based on single family units, the largest rate generator for utilities and schools. As such, any combination of single family and/or multi-family will comply with the capacities found sufficient by Lee County Utilities and The School District of Lee County, for the requested 549 additional dwelling units.

The project will comply with Objective 2.5 (HISTORIC RESOURCES). A Historical Resources query was made to the Florida Master Site File and the results included with this submittal delineating the location of the property regarding historical and culturally sensitive areas in Lee County. The Subject Property was found to be clear of any cultural or historical resources.

GENERAL DEVELOPMENT STANDARDS

The request is consistent with Standard 4.1.1 (WATER), AND 4.1.2 (SEWER), and 4.1.4 (ENIRONMENTAL FACTORS).

The River Hall Project's existing and proposed density does not and will not exceed 2 dwellings units per acre. However, the Subject Property is located within the LCU future water service area, according to Map 4-A of the Lee Plan, and as a result is required to connect to a public water system, in accordance with Standard 4.1.1. The project intends to tap into LCU for potable water service. A letter of availability from LCU is included with this submittal, demonstrating sufficient capacity within the Olga Water Treatment Plant.

Due to the development's location within the LCU future sewer service area, as shown on Map 4-B of the Lee Plan, it must connect to sewer utility if there is existing infrastructure adequate to accept the effluents of the development within ¼ mile from any part of the development, as required by Standard 4.1.2. The project intends to tap into City of Fort Myers Utilities for sewer service. A letter of availability from LCU is included with this submittal, demonstrating sufficient treatment capacity within the City of Fort Myers South Water Reclamation Facility.

Consistent with Standard 4.1.4, an Environmental Assessment Report is included with this submittal. The report analyzes environmentally sensitive areas of the site. No environmentally sensitive lands will be impacted by the proposed rezone. As shown on the MCP, the added 9.98 parcel will be entirely preserved.

RESIDENTIAL LAND USES

Pursuant to Goal 5 (RESIDENTIAL LAND USES) of the Lee Plan, the County needs "to accommodate the projected population of Lee County in the year 2045 in appropriate locations, guided by the Future Land Use Map, and in attractive and safe neighborhoods with a variety of price ranges and housing types." According to the Bureau of Economic and Business Research (BEBR), the medium range population projection for Lee County anticipates a population increase from 750,493 in 2020 to 904,700 by 2030. This influx of an additional 154,207 residents further emphasizes the need to provide housing to accommodate the projected population growth for the area. Additionally, the Subject Property is located within Unincorporated Lee County (a sub-section of Lee County), which has housed approximately half of the County's total population from 2010 to 2020. As such, Unincorporated Lee County should anticipate garnering a large percentage of the County's total population increases year after year. The utilization of the Subject Property for some additional housing will assist in achieving this goal. Consistent with Policy 5.1.1, River Hall will be developed as a planned development. Furthermore, in alliance with Policy 5.1.3 – which emphasizes directing

residential developments to locations near employment and shopping centers, parks and schools – the proposed development is proximate to SR 80 corridor growth and existing and future commercial nodes within 3 miles, public parks, and public schools to serve its residents.

The request is consistent with Policy 5.1.2, which outlines the intent to prohibit residential development where physical constraints or hazards exist. The Subject Property is outside of any Coastal High Hazard Area as delineated in Map 5-A of the Lee Plan. Through the Planned Development process, the proposed cluster development will provide the necessary environmental, historical, water quality, and infrastructure enhancement measures needed to ensure proper functionality and design.

Policy 5.1.6 calls for development regulations requiring high-density, multi-family, cluster, and mixed-use developments to have open space, buffering, landscaping, and recreation areas appropriate for their density and design. The River Hall Project is currently a clustered development plan and the proposed rezoning to increase density and acreage will comply with the community's development regulations providing sufficient open space, preservation areas and recreational areas incorporated within the development.

Policy 5.1.7 requires that community facilities (such as park, recreational, and open space areas) in residential developments to be functionally related to all dwelling units and easily accessible via pedestrian and bicycle pathways. The proposed development has an existing centrally located amenity center facility with multi-access for all residents. Additionally, open space areas will meet or exceed requirements of the LDC, and passive recreational areas will be provided, such as a shared-use pathway network linked to interior sidewalks and any proposed pedestrian/bicycle facilities along State Road 80.

COMMUNITY PLANNING

The Subject Property is identified within Lee Plan Map 2-A as being within the Caloosahatchee Shores Planning Community. Listed as Goal 21 within the Lee Plan (Caloosahatchee Shores Community Plan), the intent for the area outlines the need to "Protect the existing character, natural resources and quality of life in the Caloosahatchee Shores Community Plan area, while promoting new development, redevelopment and maintaining a more rural identity for the neighborhoods east of I-75 by establishing minimum aesthetic requirements, planning the location and intensity of future commercial and residential uses, and providing incentives for redevelopment, mixed use development and pedestrian safe environments." The requested rezoning will reinforce this goal by promoting new residential development in an ideal location planned for growth. Additionally, and consistent with Policy 21.1.3, a rezoning to RPD is requested by this application. The requested RPD, through "appropriate conditions of approval," will implement protection from inconsistent and incompatible urban development and ensure compatibility with the rural character through buffers and open space and a clustered development land use pattern.

TRANSPORTATION ELEMENT

A Traffic Impact Statement prepared by David Plummer & Associates is included in this submittal.

In summary, the study reveals that with or without the proposed rezoning request the resulting project will not:

- The proposed density increase is expected to generate 251, 381, and 3,538 more net new external trips during the AM peak hour, PM peak hour, and on a weekday, respectively, as compared to the development allowed under the current zoning;
- The proposed density increase has no significant and adverse impacts on County-maintained roadways
- The segment of SR 80 from SR 31 to Buckingham road is anticipated to operate at LOS F under future conditions with the current zoning and with the proposed amendment;
- The applicant will meet Lee County requirements regarding the payment of road impact fees at the time of development order application. Road impact fees can be used by Lee County to fund road or intersection improvements needed to support all area development as deemed necessary through the MPO LRTP process.
- The proposed amendment for the River Hall CPD/RPD does not trigger additional transportation infrastructure improvements beyond those identified in the Lee Plan.

Objectives 39.2, 39.6, and associated policies of the Transportation Element ensure coordination of land use development with planned transportation facilities appropriate for that area, resulting in increased mobility options and improving all modes of transportation. The concurrent rezone application will ensure consistency with Policy 39.2.2 by providing connectivity and accessibility via incorporating pedestrian, bicycle, and alternative modes other than motor vehicles, while ensuring connection to the adjacent public right-of-way (Palm Beach Blvd/SR 80).

Consistent with Policies 39.6.1, 39.6.2, and 39.6.3, the proposed River Hall development, at time of Development Order, will ensure all necessary traffic management infrastructure and pedestrian/bicycle connections are in place. Providing proper access both internally as well as externally to the planned shared use path/sidewalk along Palm Beach Blvd per Map 3-D and connection with the Pine Island – Hendry Trail per Map 4-E of the Lee Plan.

COMMUNITY FACILITIES & SERVICES ELEMENT

Potable Water - The Subject Property is currently located within the Lee County Utilities (LCU) service area based on the most recent Lee County Utilities Future Water Service Areas Map 4-A, dated November of 2021. The LCU Potable Water and Wastewater Availability Letter, dated August 31, 2021, indicates that potable water mains are in operation adjacent to the property and presently have sufficient capacity to service the 549 SF dwelling units proposed by this rezoning request.

In summary, LCU has sufficient potable water capacity to meet the needs of the requested rezoning based on consistency with Policies 53.1.2 and 95.1.3, and pursuant to the LOA and supporting data presented in the Existing and Future Conditions Analysis.

Sanitary Sewer - The Subject Property is located within the Lee County Utilities future sewer service area based on Lee Plan Map 4-B. The LCU Potable Water and Wastewater Availability Letter, dated August 31, 2021, indicates that sanitary sewer lines are in operation adjacent to the property and presently have sufficient capacity to service the 549 SF dwelling units proposed by the companion FLUM amendment and this rezoning request.

In summary, LCU has sufficient sanitary sewer capacity to meet the needs of the requested rezoning based on consistency with Policies 56.1.2 and 95.1.3, and pursuant to the LOA and supporting data presented in the Existing and Future Conditions Analysis.

Surface Water Management - The Subject Property is located within the South Florida Water Management District's (SFWMD) Tidal Caloosahatchee Basin. Lee Plan Map 5-D shows the property within the Olga Creek Watershed area. The River Hall RPD has a current surface water management system on site and a surface water management permit on file with the South Florida Water Management District. There are existing wetlands on site. The existing and proposed system meets the applicable County's LOS Standard, which is as follows per Lee Plan Policy 95.1.3.4:

Policy 95.1.3.4: Stormwater Management Facilities LOS: The existing surface water management system in the unincorporated areas of the county will be sufficient to prevent the flooding of designated evacuation routes (see Map3-F) from the 25-year, 3-day storm event (rainfall) for more than 24 hours.

A modified storm water management system will be provided for the property and will benefit the public through clearly defining storm water treatment methods, establishing maintenance accountability, and providing runoff attenuation consistent with Objective 60.1 and Policy 60.1.1. Treated runoff from the developed site will discharge to adjacent tidal creeks and rivers. The Lee County Public Facilities 2020 LOS and Concurrency Report (2020 Report) indicates that all watersheds within the county were studied and concluded that no evacuation routes located within these watersheds are expected to be flooded for more than a 24-hour period. Per the 2020 Report, Lee County states that all new developments receiving approval from SFWMD and in compliance with appropriate standards will be deemed concurrent with the Lee Plan's surface water management level-of-service standards.

The proposed development will seek and obtain all applicable South Florida Water Management District approvals, as well as comply with all Florida Administrative Code Chapter 62-330 standards to ensure consistency with the stated LOS standards per Policy 95.1.3.4 of the Lee Plan. Additionally, through the utilization of clustered development, the proposed development will ensure preservation of existing waterways and wetland habitats consistent with Policy 60.1.2.

Objective 60.4 outlines the intent to incorporate natural systems into surface water management systems to improve water quality, air quality, water recharge/infiltration, water storage, wildlife habitat, recreational opportunities, and visual relief. The proposed development will provide Florida Friendly Landscaping vegetation, retention/detention lakes, and preserved wetlands and conservation easements. It will also provide a surface water management system that will incorporate natural flow ways through utilization of the existing wetland systems, complying with policies 60.4.1, 60.4.2, and 60.4.3.

PARKS, RECREATION & OPEN SPACE

Pursuant to Section 10-415 of the LDC, the development is required to provide 40% open space with 50% of the required open space provided as indigenous native vegetation preserve areas. The clustered design and site layout of the proposed MCP allows a significant amount of land area to be provided for open space, meeting the LDC's requirements. These open spaces will encompass preserve areas, passive recreational areas, lakes, and buffers ensuring consistency with Goal 77 – requiring new development “to provide adequate open space for improved aesthetic appearance,

visual relief, environmental quality, preservation of existing native trees and plant communities, and the planting of required vegetation.” Consistent with Policy 77.3.1, the development will provide more than half of the required 40% open space as existing native plant communities. Additionally, the project’s clustered design incorporates “large, contiguous open space areas in the development design,” consistent with Policy 77.3.4. Additionally, the added 9.98 parcel will be preserved, adding to the provided open space of the overall development.

CONSERVATION & COASTAL MANAGEMENT ELEMENT

The Subject Property is not within the Coastal High Hazard Area or Coastal Building Zone, based on Lee Plan Map 5-A.

To ensure consistency with Goal 123 of the Lee Plan, an environmental assessment was conducted and a report by Passarella & Associates, Inc., dated October 2021 is included as part of this submittal (Exhibit M13). Consistent with Policies 123.1.5, 123.1.7, 123.2.2 and 123.2.4, the proposed clustered development provides designated preserve areas and conservation easements. These preserves/conservation easements protect high quality wetlands, plant communities, and indigenous uplands, while addressing restoration and management of non-indigenous/invasive areas of the property. In addition, the preserves/conservation easements located in the eastern portion of the River Hall Project abut a LAMSID Canal followed by Hickey Creek mitigation park (County owned conservation land), supporting “connectivity between public and private conservation and preservation efforts,” outlined in Policy 123.1.5. Consistent with the intent of Policies 123.2.8, 123.2.9, 123.2.10, and 123.2.11, the River Hall Project is subject to a long-term plan, as approved by Lee County, to provide management and maintenance of the preservation areas and be designed to protect the natural character of adjacent nature preserves.

Lee Plan Goal 124 provides language to ensure adequate maintenance and enforcement for any development in wetlands that is cost-effective, complements federal and state permitting processes, and protects the fragile ecological characteristics of wetland systems. Portions of the 9.98 acres added parcel contain wetlands, but no development is proposed in this parcel. As such, there will be no development related impacts to the River Hall Project’s existing wetlands by the requested rezoning. The Project’s provided wetlands and conservation areas will be reviewed for compliance with the Lee Plan during the rezoning process. The use of a cluster development pattern on the urban designated lands, included in this request, permits an increase in the Project’s density without impacting the project’s existing wetlands, preservation, and conservation areas. The development, as it moves through the permitting process, will be reviewed by the South Florida Water Management District and as a result will be consistent with overall Goal 124, Objective 124.1, and Policies 124.1.1 and 124.1.2.

The proposed rezoning to the River Hall Project will be consistent with Lee Plan Goal 125, Objective 125.1, and Policies 125.1.2 and 125.1.3. The concurrent comprehensive plan map amendment and rezoning application review processes will ensure that water quality is maintained or improved through a comprehensive surface water management system, which will be modified if needed to support the additional 549 dwelling units. The proposed development will reduce nutrient loading and impacts to adjacent waterways; preserve high-quality wetlands; and eliminate the potential for hundreds of individual wells and septic systems by requiring connection to the adjacent potable water and sanitary sewer infrastructure.

HOUSING ELEMENT

Consistent with Goal 135, the proposed rezoning will help to provide adequate housing for existing and future residents of Lee County. The County's objective is to work with private and public housing providers to ensure the types, costs, and locations of housing are provided to meet the needs of the County's population, per Objective 135.1 of the Lee Plan. Southwest Florida is one of the state's leading in-migration areas with Fort Myers being among one of the fastest growing metro areas in the nation, based on data from the U.S. Census Bureau. The County's population is estimated to increase to approximately 900,000 by 2030 (8 years), pursuant to the University of Florida's BEBR Projections of Florida Population by County 2025-2045, and will need additional dwelling units to be provided in unincorporated Lee County to meet the needs of the County's existing and future residents. The proposed rezoning and companion comprehensive plan amendment will allow for up to 549 new housing units to help meet Goal 135 and the intent of Objective 135.1. The proposed rezoning and companion amendment are also consistent with Policy 135.1.9, which outlines the need to provide "a wide variety of allowable housing densities and types through the planned development process."

PLANNING COMMUNITY ACREAGE ALLOCATION – TABLE 1(b) ANALYSIS & EFFECT ON POPULATION

Lee Plan Policy 1.6.5 outlines, by reference Lee Plan Map 1-B and Table 1(b), the "proposed distribution, extent, and location of generalized land uses through the Plan's horizon." As discussed with Staff on February 1, 2022, there is adequate acreage within Table 1(b) at this time for the proposed River Hall CPA, companion to this rezoning request, which will be re-evaluated prior to development.

Lee County's population projections will not be impacted negatively by the proposed rezoning. There are 2.64 persons per household and an overall population of 618,754 (2010 Census) in Lee County, as estimated by the United States Census Bureau's Quick Facts database. The Subject Property under the proposed rezoning and concurrent map amendment, which caps density at 549 additional units, could accommodate approximately 1,449 additional persons (549 units x 2.64 persons per household).

Lee County's 2020 population estimate was 760,822 according to the United States Census Bureau QuickFacts. The County's 2030 projected population is 904,700 and 1,010,900 in the year 2040, according to the UFCLAS – Bureau of Economic and Business Research. Taking these projections into consideration, more than 50,000 dwelling units will be needed within the next 5 to 10 years, with over one third of those dwelling units needed in Unincorporated Lee County. The proposed rezoning and concurrent map amendment will provide 549 additional dwelling units that are compatible and complimentary to the surrounding community and support the future population growth in Lee County.

SANDSTONE AQUIFER

The use of the Sandstone aquifer at the project site is permitted under South Florida Water Management District Irrigation Water Use Permit No. 36-04006-W. The irrigation system is permitted with the supply derived from the lake system with groundwater from the Sandstone and Lower Hawthorn aquifers discharged to the lakes as recharge. The permit has a source limitation on the Sandstone aquifer and allocates a maximum monthly usage of 16.76 million gallons (MG) and an annual use of 203.67 MG from the aquifer.

During the application and review process of the permit prior to development, computer impact analyses were conducted to determine the allowable allocation to be derived from each source. As the Sandstone aquifer is also a source for nearby domestic use, the allocation from the aquifer was limited to volumes that computer modeling showed did not create adverse impacts to adjacent users and that met the applicable SFWMD permitting criteria.

With respect to the Sandstone aquifer and the requirements of the Lee Plan policy 60.1.1 (POLICY 60.1.1: Require design of surface water management systems to protect or enhance the groundwater), the permitted use of the aquifer is as an irrigation source that discharges to the surface water system to recharge the water withdrawn from the lake system. The specific use of the Sandstone aquifer and the surface water system is balanced as there is no net change in the water levels in the lake system resulting from use of the Sandstone aquifer as the recharge from the aquifer is replacing an equal volume withdrawn for irrigation. The Sandstone aquifer on site is a confined aquifer that is separated from the water-table aquifer/surface water system by an approximately 40 foot thick confining unit (District Publication WS-35) which limits interaction between zones. Therefore, the interaction between the surface water management system and the Sandstone aquifer is negligible and has no net positive or negative effect. No changes to the allocation or use of the Sandstone aquifer are proposed.

The Lee Plan's Goal 126: Water Resources is to "Conserve, manage, and protect the natural hydrologic systems of Lee County to ensure continued water resource availability." The use of the Sandstone aquifer on site meets this goal and the requirements of policy 126.1.2 (POLICY 126.1.2: Recognize and encourage water and wastewater management practices that do not exceed the natural assimilative capacity of the environment or applicable health standards. Conservation and Coastal Management VII-16 November 2021 Water and wastewater management includes, but is not limited to, aquifer recharge, aquifer storage and recovery, reuse water, reverse osmosis, dual water systems, use of low volume irrigation systems, use of water-conserving vegetation, and other conservation and recycling techniques.).

As noted, the impacts of the use of the Sandstone aquifer had been evaluated during the SFWMD permitting process. Computer modeling conducted during the permitting process done in 2005 and 2006 (Application No. 050531-4) assessed the impacts of Sandstone aquifer withdrawals at the maximum monthly withdrawals of 16.76 MG. The District noted in the Staff Report prepared for the permit that modeling data were consistent with the criteria set forth in Subsection 3.1.2 of the SFWMD Applicant's Handbook. The aquifer parameters for the Sandstone aquifer modeling were obtained from onsite pump tests and aquifer parameters determined from the testing. Withdrawals of the recommended maximum monthly allocation were simulated for 90 days with no recharge. The purpose of the analysis was to simulate withdrawals of the maximum monthly allocations during a 1-in-10 year drought scenario. The modeling results showed that the maximum drawdown as a result of the maximum monthly withdrawals from the Sandstone aquifer was 5.77 feet at a well node.

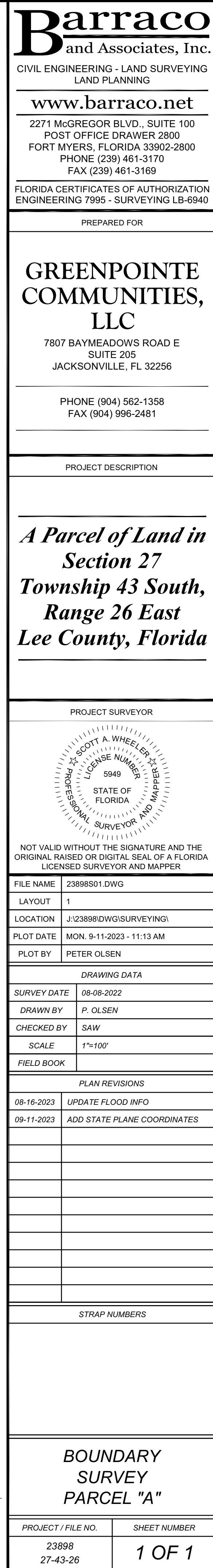
To assess the impacts on the regional Sandstone aquifer, a determination of the effect of the modeled drawdown on the Maximum Developable Limit (MDL) was undertaken. The assessment assumed a land surface elevation at the project site of approximately 13 feet NGVD. The top of the Sandstone in the vicinity of the site is approximately -50 feet NGVD (District Publication WS-35). The MDL, which is defined as water levels 20 feet above the top of the aquifer, is -30 feet NGVD. The lowest recorded water level in the Sandstone aquifer, obtained from USGS Monitor Well L-1975, located approximately 1.5 miles north of the site was 4.10 feet NGVD. The modeling results submitted under Application 050531-4 show a drawdown of

approximately 5.8 feet in the aquifer at the project's wells as a result of the withdrawal of the permitted allocation, leaving approximately 28 feet of head above the MDL. Therefore, the potential for harm to occur to water resource availability of the Sandstone aquifer as a result of the withdrawal of the recommended allocation was considered minimal.

To assess the water levels in the Sandstone aquifer on site, two monitor wells were constructed in June 2019 at the northern and southern property boundaries (Figure 1). Monitoring data have shown that the minimum level in the aquifer on site during the period of record occurred in April 2021 at the northern monitor well location. The minimum level recorded was -2.43 feet NAVD (approximately -1.23 feet NGVD). The minimum recorded level was greater than 28 feet above the MDL.

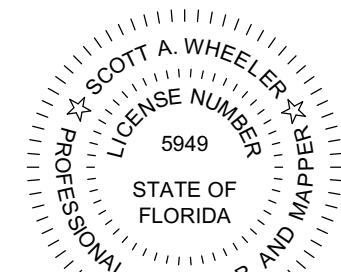
The site is currently utilizing onsite resources to supply the irrigation demands of the project. The use of reclaimed water as an irrigation source has been investigated with Lee County Utilities. A July 2021 letter (River Hall Reuse 07-16-21) from Nathan Beal, Utilities Planning Manager, indicates that the Utility does not have the capability to supply reuse water to the site. The use of reclaimed water as an irrigation source will be considered for use in the future as it becomes available.

The project uses best management practices to limit unnecessary irrigation including the use of xeriscaping principles, soil moisture sensors, rain gauges, monitoring of site conditions by qualified onsite personnel, and employs the use of calibrated totalizing flow meters on all withdrawal sources. The project limits water usage to mandated irrigation schedules and watering restrictions. In addition, all irrigation measures comply with the mandatory year-round landscape measures for Lee, Charlotte, and Collier Counties, per Chapter 40E-24, F.A.C. A compliance monitoring program is currently in place to monitor water levels and water quality within the source aquifers and the lake system.



NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED OR
DIGITAL SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

A.E.	ACCESS EASEMENT	C.M.	CONCRETE MONUMENT	F.P. & L.	FLORIDA POWER & LIGHT CO.	L.B.E.	LANDSCAPE BUFFER EASEMENT	P.G.	PLAT BOOK PAGE	R.C.P.	REINFORCED CONCRETE PIPE	▲	SET "MAG" NAIL WITH DISC STAMPED LB6940	☛	FLOOD LIGHT	⚡	AIR RELEASE VALVE		
B.M.	BENCHMARK							P.B.	PAGE			●	SET 1/2" IRON ROD WITH CAP STAMPED LB6940	☛	CONCRETE POWER POLE	☛	IRRIGATION VALVE		
(C)	CALCULATED CORNER	✓	CORNER	FRAC.	FRACTION	L.C.R.	LEE COUNTY RECORDS	P.K.	PARKER-KALON REFERENCE	R.W.	REFERENCE	■	SET 4"x4" CONC. MONUMENT STAMPED LB6940	☛	WOOD POWER POLE	☛	IRRIGATION SERVICE		
CCR#	CERTIFIED CORNER RECORD	Δ	DELTA ANGLE= (D)	I.E.	IRRIGATION EASEMENT	L.C.U.E.	LEE COUNTY UTILITY EASEMENT	P.R.M.	PERMANENT REFERENCE MONUMENT	RF	RIGHT OF WAY TYP.	○	FOUND NAIL AS NOTED	☛	GUY ANCHOR	☛	WELL		
C/L	CENTER LINE	D.B.	DEED BOOK	INST.	INSTRUMENT					SEC.	SECTION	○	FOUND CONC. MONUMENT AS NOTED	☛	TELEPHONE BOX	☛	SANITARY MANHOLE		
CONC.	CONCRETE	E.L.	DRAINAGE EASEMENT	I.P.	IRON PIPE	L.M.E.	LAKE MAINTENANCE EASEMENT	PROP.	PROPERTY P.V.C.	W/	WITH WIT.	WITNESS	○	FOUND IRON PIPE OR IRON ROD AS NOTED	☛	ELECTRIC BOX	☛	SANITARY SERVICE	
CB=	CHORD BEARING=	E.L.	ELEVATION	I.R.	IRON ROD								⑥	DRAINAGE INLET	☛	CABLE TV BOX	☛	SIGN	
CD=	CHORD DISTANCE=	FD.	FOUND	L=	LENGTH= (M)								⑦	DRAINAGE MANHOLE	☛	WATER VALVE	☛	MAIL BOX	
CH=	CHORD BEARING & DISTANCE=	F.D.O.T.	FLORIDA DEPARTMENT OF TRANSPORTATION	L.A.E.	LAKE ACCESS EASEMENT	O.R.	OFFICIAL RECORD BOOK	P.U.E.	PUBLIC UTILITY EASEMENT	R=	RADIUS=	☛	MITERED END SECTION	☛	YARD DRAIN	☛	WATER BOX	☛	BLOW OFF
												☛	* YARD DRAIN	☛	FIRE HYDRANT	☛	FIBER OPTIC CABLE MARKER	☛	
												☛	✱ LIGHT POLE	☛	BACK FLOW ASSEMBLY	☛	GAS LINE MARKER	☛	GAS VALVE



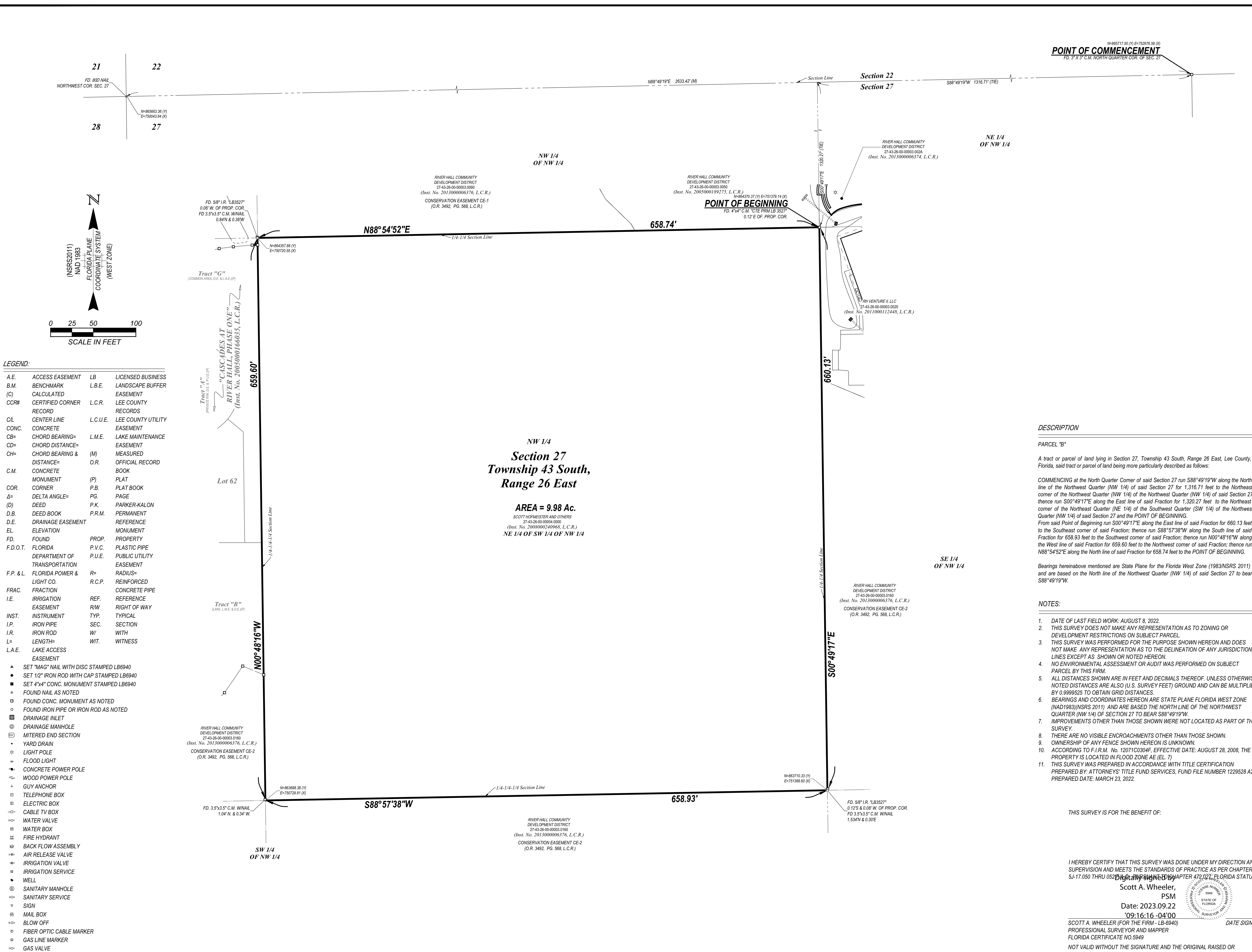
FILE NAME	23898S02.DWG
LAYOUT	1
LOCATION	J:\23898\DWG\SURVEYING\
PLOT DATE	MON. 9-11-2023 - 11:15 AM
PLOT BY	PETER OLSEN

DRAWING DATA	
SURVEY DATE	08-08-2022
DRAWN BY	P. OLSEN
CHECKED BY	SAW
SCALE	1"=50'
FIELD BOOK	

PLAN REVISIONS	
09-11-2023	ADD STATE PLANE COORDINATES

STRAP NUMBERS	

PROJECT / FILE NO.	SHEET NUMBER
23898 27-43-26	1 OF 1



[illegible]

BEGINNING at the Southwest corner of said Section 36 run along the Easterly side of the record plat of "HAMPTON LAKES AT RIVER HALL SOUTH" recorded in Instrument No. 2021000035440, Lee County Records, the following six (6) courses: N00°43'38"W for 1,603.16 feet to a point on a non-tangential curve; Northwesterly along an arc of a curve to the right of radius 755.00 feet (delta 72°15'57") (chord bearing N47°04'09"W (chord 355.91 ft) for 359.29 feet to a point of compound curvature; Northerly along an arc of a curve to the right of radius 255.00 feet (delta 97°24'53") (chord bearing N12°16'10"E (chord 355.05 ft) for 406.85 feet to a point of tangency; N55°54'45"E for 101.29 feet to a point of tangency; S02°32'15"E for 164.20 feet to a point of tangency; N02°38'29"E for 101.29 feet to a point of tangency; (chord bearing N6°35'57"E (chord 244.42 ft) for 254.91 feet and N25°11'15"E for 30.08 feet to an intersection with the Southerly line of the record plat of "RIVER HALL COUNTRY CLUB, PHASE TWO" recorded in Instrument No. 2006000409514, Lee County Records; thence run along said Southerly line of the following two (2) courses: S42°30'21"E to 22.31 feet and N72°42'51"E for 164.20 feet; thence run S42°03'49"W for 118.12 feet to a point of curvature; thence run Southeasterly along an arc of a curve to the left of radius 190.00 feet (delta 192°25'20") (chord bearing S34°08'51"E (chord 377.77 ft) for 638.10 feet to a point of tangency; thence run N29°38'29"E for 101.29 feet to a point of tangency; S02°32'15"E for 164.20 feet to a point of tangency; N02°38'29"E for 101.29 feet to a point of tangency; (chord bearing N56°45'46"E (chord 86.62 ft) for 89.94 feet to a point of tangency; thence run N43°53'03"E for 79.93 feet to a point of curvature; thence run Northeasterly along an arc of a curve to the left of radius

[illegible]

along a non-tangent line to 30.44 feet at a point of curvature; Southerly along an arc of a curve to the right of radius 350.0 feet (delta 71°23'11") (chord bearing S13°15'18"W) (chord 140.71 feet) for 141.67 feet to a point of compound curvature; Southerly along an arc of a curve to the right of radius 1,651.75 feet (delta 11°33'08") (chord bearing S30°37'38"W) (chord 332.47 feet) for 333.04 feet to a point on a non-tangent curve; Southerly along an arc of a curve to the right of radius 690.0 feet (delta 11°50'09") (chord bearing S57°17'46"W) (chord 492.70 feet) for 503.82 feet to a point of tangency; S78°12'50"W for 275.30 feet to a point of curvature; Southerly along an arc of a curve to the left of radius 1,335.00 feet (delta 22°43'21") (chord bearing S66°51'10"W) (chord 525.91 feet) for 529.44 feet to a point on a non-tangent curve; Southerly along an arc of a curve to the left of radius 132.56 feet (delta 12°16'24") (chord bearing S55°00'04"W) (chord 28.34 feet) for 28.39 feet to a point on a non-tangent curve; Southerly along an arc of a curve to the right of radius 1,665.00 feet (delta 11°33'08") (chord bearing S30°37'38"W) (chord 332.47 feet) for 333.04 feet to a point of tangency; S78°12'50"W for 275.30 feet to a point of curvature; Southerly along an arc of a curve to the left of radius 1,335.00 feet (delta 22°43'21") (chord bearing S66°51'10"W) (chord 525.91 feet) for 529.44 feet to a point on a non-tangent curve; Southerly along an arc of a curve to the left of radius 132.56 feet (delta 12°16'24") (chord bearing S55°00'04"W) (chord 28.34 feet) for 28.39 feet to a point on a non-tangent line for 74.36 feet to an intersection with the South line of the Southwest Quarter (SW 1/4) of said Section 36; thence run N89°11'43"W along said South line for 1,166.27 feet to the Point of BEGINNING.

Bearings hereinabove mentioned are State Plane for the Florida West Zone (1983/NSRS 2011) and are based on the South line of the Southwest Quarter (SW 1/4) of said Section 36 to bear S89°11'43"W.

1. DATE OF LAST FIELD WORK: AUGUST 8, 2022.
2. THIS SURVEY DOES NOT MAKE ANY REPRESENTATION AS TO ZONING OR DEVELOPMENT RESTRICTIONS ON SUBJECT PARCEL.
3. THIS SURVEY WAS PERFORMED FOR THE PURPOSE SHOWN HEREON AND DOES NOT MAKE ANY REPRESENTATION AS TO THE DELINEATION OF ANY JURISDICTIONAL LINES EXCEPT AS SHOWN OR NOTED HEREON.
4. NO ENVIRONMENTAL ASSESSMENT OR AUDIT WAS PERFORMED ON SUBJECT PARCEL BY THIS FIRM.
5. ALL DISTANCES SHOWN ARE IN FEET AND DECIMALS THEREOF. UNLESS OTHERWISE NOTED, DISTANCES ARE ALSO (U.S. SURVEY FEET) GROUND AND CAN BE MULTIPLIED BY 0.9998525 TO OBTAIN GRID DISTANCES.
6. BEARINGS AND COORDINATES HEREON ARE STATE PLANE FLORIDA WEST ZONE (NAD1983) NSRS (2011) AND ARE BASED THE SOUTH LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 38 T.15S R.10E S.38N 114°31'.
7. IMPROVEMENTS OTHER THAN THOSE SHOWN WERE NOT LOCATED AS PART OF THIS SURVEY.
8. THERE ARE NO VISIBLE ENCROACHMENTS OTHER THAN THOSE SHOWN.
9. OWNERSHIP OF ANY FENCE SHOWN HEREON IS UNKNOWN.
10. ACCORDING TO F.I.R.M. NO. 1207100308 AND 1207100316; EFFECTIVE DATE: AUGUST 28, 2008, THE PROPERTY IS LOCATED IN DISTRICT X (OTHER AREAS).
11. THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE TITLE CERTIFICATE PREPARED BY ATTORNEYS' TITLE FUND SERVICES' FUND FINE NUMBER 1226528 & 42, PREPARED DATE: MARCH 23, 2022.

THIS SURVEY IS FOR THE BENEFIT OF:

I HEREBY CERTIFY THAT THIS SURVEY WAS DONE UNDER MY DIRECTION AND SUPERVISION AND MEETS THE STANDARDS OF PRACTICE AS PER CHAPTER 5J-17.050 THRU 052 F.A.C. PURSUANT TO CHAPTER 472.027, FLORIDA STATUTES.

Digitally signed by
Scott A. Wheeler, PSM
Date: 2023.09.22
'09:16:38 -04'00

SCOTT A. WHEELER (FOR THE FIRM - LB-6940)
PROFESSIONAL SURVEYOR AND MAPPER
FLORIDA CERTIFICATE NO. 5949

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED OR
DIGITAL SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

DATE SIGNED:

RIVER HALL CPD/RPD PLANNED DEVELOPMENT AMENDMENT *TRAFFIC IMPACT STATEMENT*

Revised – September 13, 2023



Since 1978

Prepared By:

David Plummer & Associates

Prepared For:

GreenPointe Communities, LLC

Date Prepared:

July 20, 2023

Revised – September 13, 2023

DPA Job #:

20512

RIVER HALL CPD/RPD
PLANNED DEVELOPMENT AMENDMENT
TRAFFIC IMPACT STATEMENT

Introduction

The River Hall CPD/RPD, hereafter referred to as the Project, is an existing mixed-use development located in east Lee County, Florida. The Project site is located on SR 80, approximately three-fourths of a mile east of Buckingham Road at River Hall Parkway (Exhibit 1).

The current zoning for the River Hall CPD/RPD allows 2,695 residential dwelling units (and supporting amenities), 30,000 square feet of retail, and 15,000 square feet of office.

The purpose of this traffic analysis is to support the rezoning application of the River Hall CPD/RPD and companion Comprehensive Plan Amendment (CPA) to allow an addition of 549 residential units along with reducing the total commercial square footage to a maximum of 15,000 square feet. The ZTIS has been prepared to be consistent with Lee County AC-13-17 Traffic Study Guidelines for Planned Development Rezoning (Appendix A) and standard practices accepted by Lee County for zoning requests that are projected to generate more than 300 peak hour trips ends.

Revised TIS

The TIS has been revised to address the sufficiency comments left by Lee County Staff on August 24, 2023. DPA has spoken with Staff on September 12, 2023 for clarification of the comments. Response to sufficiency comments can be seen in Appendix H.

Executive Summary

The conclusions of this ZTIS are as follows.

- The development proposes to add 549 residential units, a 20% increase over the currently approved 2,695 residential units.
- A simultaneous decrease of 30,000 square feet of commercial use is also proposed.
- The Project's trip generation is expected to increase by less than 18% over the currently approved zoning.
- The resultant increase in the Project's trip generation will not trigger additional roadway facility deficiencies than already anticipated without the proposed zoning amendment.
- River Hall will fully mitigate its offsite transportation impacts through the payment of Lee County Road Impact Fees at the time of development order application.
- Lee County and FDOT are encouraged to program the necessary roadway improvements to maintain the adopted LOS standards/targets of the surrounding roadway network.

Development Parameters

The current zoning for the River Hall CPD/RPD allows 2,695 residential dwelling units (and supporting amenities), 30,000 square feet of retail, and 15,000 square feet of office.

The proposed amendment will allow an addition of 549 residential units for a total of 3,244 residential units along with reducing the total commercial square footage to a maximum of 15,000 square feet.

There are currently 2,346 residential units permitted to-date within the River Hall CPD/RPD, Appendix B. The development parameters are summarized in the following.

River Hall Development Parameters			
Land Use	Permitted To-Date	Current Zoning	Proposed Amendment
Residential Units (d.u.)	2,346	2,695	3,244
Single-Family Detached (d.u.)	2,116	-	-
Single-Family Attached (d.u.)	92	-	-
Multifamily Residential (d.u.)	138	-	-
Retail (sq. ft.)	0	30,000	-
Office (sq. ft.)	0	15,000	-
Commercial (sq. ft.)	0	-	15,000
Retail (sq. ft.)	0	-	TBD During DO Approval
General Office (sq. ft.)	0	-	
Medical Office (sq. ft.)	0	-	
Golf (holes)	18	36	36

The River Hall CPD/RPD is anticipated to be built-out by 2025; therefore, the future traffic conditions in this report reflect year 2026.

Project Access

The Project is currently served by River Hall Parkway, the main entry road from SR 80 (Exhibit 1). The current zoning resolution provides for an additional access point at the south property line, which will connect to 75th Street West in Lehigh Acres (Exhibit 1). This zoning application will add an additional access to the southern property line, which will connect to 75th Street West in Lehigh Acres (Exhibit 1). It is anticipated that the southern accesses will accommodate less than three percent of the future River Hall external traffic. River Hall Parkway will allow non-River Hall traffic to reach the River Hall Elementary School and to provide for pass-through opportunities to/from Lehigh Acres and SR 80.

Existing Road Network

The existing roadway network in the vicinity of the Project is depicted in Exhibit 1. There are

several major roadways in the vicinity of the Project including the following.

- Buckingham Road – County-maintained, two-lane arterial roadway.
- Cemetery Road – County-maintained, two-lane major collector roadway.
- North River Road – County-maintained, two-lane minor arterial roadway.
- Olga Road – County-maintained, two-lane minor collector roadway.
- Orange River Boulevard – County maintained, two-lane major collector roadway.
- SR 31 – State maintained, two-lane arterial roadway.
- SR 80 – State maintained, arterial roadway. Six-lane roadway west of SR 31. Four-lane roadway east of SR 31.
- Per the FDOT 2023 Multimodal Quality/Level of Service Handbook (January 2023), the applicable generalized service volumes for SR 80 and SR 31 have been drastically reduced.

Data and Analysis

The data and analysis considered in the traffic study are discussed below.

Analysis Scenarios

The following scenarios were analyzed in the traffic study.

River Hall Analysis Scenarios	
Project	Year
Existing Conditions	2021/2022
With Current Zoning	2026
With Proposed Amendment	2026

Traffic Data and Conversion Factors

Traffic data and conversion factors used in this traffic study are provided in Appendix C and include the following sources.

- FDOT Florida Traffic Online
 - 2022 AADT traffic volumes
 - K and D factors
 - FDOT generalized service volumes (2023 Quality/Level of Service Handbook)
 - Seasonal adjustment factor
 - Historic AADT volumes/growth trend analysis
- Lee County 2022 Public Facilities Level of Service and Concurrency Report
 - Existing peak hour directional volumes and LOS on County roadways
 - Link-specific service volumes - utilized to evaluate existing traffic conditions
- Lee County generalized service volumes - utilized to evaluate future traffic conditions

Turning Movement Counts

Turning movement counts were collected on September 15, 2021 at the following intersections.

- SR 80 / River Hall Parkway
- River Hall Parkway / West Elementary School Driveway
- River Hall Parkway / Center Elementary School Driveway
- River Hall Parkway / East Elementary School Driveway

The intersection turning movement counts were adjusted to peak season traffic conditions using data derived from FDOT's 2019 Peak Season Factor Category Report.

Turning movement counts conducted pre-2020 were referenced for intersections located outside River Hall's boundary and included the following intersections.

- SR 80 / Buckingham Road
 - AM peak hour data collected February 2018
 - PM peak hour data collected April 2019
- SR 80 / SR 31
 - AM peak hour data collected January 2016
 - PM peak hour data collected April 2019

The complete traffic counts are provided in Appendix D.

Level of Service Standards

Roadway level of service (LOS) standards vary depending on the jurisdiction. The Florida DOT LOS targets will apply to State-maintained facilities. For County roads, the LOS standards adopted in the Lee Plan will apply. The applicable roadway LOS targets/standards are as follows.

- State Roads in Urbanized Areas – LOS D
- State Roads outside Urbanized Areas – LOS C
- Lee County Roads – LOS E

River Hall Trip Generation – Existing Field Measured

The existing trip generation and resultant external roadway traffic volumes associated with the River Hall Elementary School and River Hall CPD/RPD are discussed below.

River Hall Elementary School Trip Generation – Existing Field Measured

The River Hall Elementary School (RHES) is located within the River Hall Community. The school is a public entity and is not part of the River Hall RPD/CPD development.

Based on the traffic counts conducted at the three school entrances along River Hall Parkway, the

existing trip generation of RHES coincident with the AM and PM peak hours of the adjacent street are summarized below.

River Hall Elementary School Existing Field Measured Trip Generation ⁽¹⁾						
	AM Peak Hour ⁽²⁾			PM Peak Hour ⁽³⁾		
	In	Out	Total	In	Out	Total
Total Driveway Trips	177	42	219	52	69	121
To/From River Hall Residential	16	2	18	2	3	5
School Trips at SR 80 Entrance	161	40	201	50	66	116

Footnotes:

- (1) Based on turning movement counts conducted on September 15, 2021. Adjusted for peak season.
- (2) AM peak hour of adjacent street (SR 80) – 7:15-8:15 AM.
- (3) PM peak hour of adjacent street (SR 80) – 4:45-5:45 AM.

River Hall CPD/RPD Trip Generation – Existing Field Measured

Based on the traffic counts conducted along River Hall Parkway, the existing trip generation of River Hall RPD/CPD coincident with the AM and PM peak hours of the adjacent street is summarized below.

River Hall Community Existing Field Measured Trip Generation ⁽¹⁾						
	AM Peak Hour ⁽²⁾			PM Peak Hour ⁽³⁾		
	In	Out	Total	In	Out	Total
Total Trips at SR 80 Entrance	324	244	568	269	240	509
School Trips at SR 80 Entrance	177	42	219	52	69	121
River Hall CPD/RPD Trips at SR 80 Entrance	147	202	349	268	188	440

Footnotes:

- (1) Based on turning movement counts conducted on September 15, 2021. Adjusted for peak season.
- (2) AM peak hour of adjacent street (SR 80) – 7:15-8:15 AM.
- (3) PM peak hour of adjacent street (SR 80) – 4:45-5:45 AM.

Existing Traffic Conditions

Existing traffic conditions for the roadway segments and intersections under study are provided below.

Existing Roadway LOS

FDOT 2022 AADT traffic volumes reported on Florida Traffic Online and Lee County's Public Facilities Level of Service and Concurrency Report 2022 Inventory and Projections were relied on to establish existing roadway volumes in the study area, Appendix C.

The existing roadway level of service (LOS) for state roads was determined using the latest FDOT generalized service volumes reported in the 2023 Multimodal Quality / Level of Service

Handbook. 2022 AADT traffic volumes reported by FDOT were converted to peak hour peak direction using K and D values reported by portable and permanent count stations.

Staff has requested the existing conditions analysis be performed using the Lee County generalized service volumes, as summarized below with a detailed analysis in Appendix C.

River Hall Existing Traffic Conditions Roadway Level of Service				
Roadway	From	To	LOS ⁽¹⁾	LOS ⁽²⁾
Buckingham Rd.	SR 82	Gunnery Rd.	D	C
	Gunnery Rd.	Orange River Blvd.	C	C
	Orange River Blvd.	SR 80	D	C
Cemetery Rd.	Buckingham Rd.	Higgins Ave.	C	C
North River Rd.	SR 31	Franklin Lock Rd.	A	C
	Franklin Lock Rd.	Broadway Rd.	A	C
Olga Rd.	SR 80 W	SR 80 E	C	C
Orange River Blvd.	Staley Rd.	Buckingham Rd.	D	D
SR 31 (Babcock Ranch Rd.)	SR 80	SR 78	C	C
	SR 78	Old Rodeo Dr.	C	C
SR 80 (Palm Beach Blvd.)	CR 80B (Ortiz Ave.)	I-75	D	C
	I-75	SR 31	D	C
	SR 31	Buckingham Rd	D	F ⁽³⁾
	Buckingham Rd	River Hall Pkwy.	D	C
	River Hall Pkwy.	Werner Drive	D	C
	Werner Drive	Joel Blvd.	C	C
	Joel Blvd.	Hendry County Line	C	C

Footnote:

- (1) LOS reported in the Public Facilities Level of Service and Concurrency Report 2022 Inventory and Projections
- (2) Calculated LOS using Lee County and FDOT generalized service volumes.
- (3) Transportation Deficient per Chapter 163.3180 F.S.

Two segments of SR 80 are currently below the level of service target for state roads. All other roadway segments under study currently operate at better than the adopted level of service target.

Existing Intersection LOS

Intersection capacity analysis was performed for the intersections under study. Analysis for the project entrance is reflective of the existing traffic volumes presented in Exhibit 2. Analysis for the external intersections is reflective of past traffic counts (projected to 2021), Appendix G. The operation of the intersections was evaluated based on methodologies from the Highway Capacity Manual, 6th Edition (HCM 6).

The resultant HCM analysis output sheets are included in Appendix E and summarized below.

River Hall Existing Traffic Conditions Intersection Level of Service		
Intersection	Level of Service, Peak Hour	
	AM	PM
SR 80/River Hall Parkway	A ⁽¹⁾	B ⁽¹⁾
SR 80/Buckingham Road	C ⁽¹⁾	D ⁽¹⁾
SR 80/SR 31	E ^(1,2)	D ⁽¹⁾

Footnote:

(1) Signalized - Overall LOS reported.

(2) Transportation Deficient per Chapter 163.3180, F.S.

Future 2026 Traffic Projections

The River Hall CPD/RPD is anticipated to be built-out within a five-year period without and with the proposed PD amendment; therefore, the future traffic conditions in this report reflect year 2026.

Existing Background Traffic without River Hall CPD/RPD Traffic

To avoid “double counting” of trips associated with the River Hall CPD/RPD, existing volumes in the study area were adjusted to subtract the existing field-measured trips observed at the SR 80/River Hall Parkway entrance. The field-measured trip assignment on the study network was determined using distributions derived from the River Hall CPA travel model runs (distribution percentages were adjusted to account for secondary entrance not being constructed yet). The existing River Hall CPD/RPD trip assignment was subtracted on a segment basis from the existing peak hour directional volumes reported by Lee County (2022 Concurrency Report) and FDOT Florida Traffic Online.

Future 2026 General Background Traffic

Growth trends were established from historical AADT data from FDOT’s Florida Traffic Online Web Application (2022 data), Appendix C. Future background traffic was estimated by applying growth rates derived from the trend analysis to the existing background traffic (without River Hall CPD/RPD traffic).

Future River Hall Parkway Pass-Thru Traffic (Non-PD/School Traffic)

The southern access points located to the south of River Hall will allow traffic not associated with the River Hall Community to pass through to/from SR 80 and Lehigh Acres. This component of traffic was estimated using the River Hall CPA travel model runs. Pass-through traffic was estimated by converting model daily volumes to peak hour directional volumes using FDOT K and D factors; pass through trips were assigned to the study area based on distributions derived from select link analysis in the travel model.

River Hall CPD/RPD Trip Generation

The trip generation associated with the buildout development scenarios was estimated based on

trip rates from the Institute of Transportation Engineers (ITE), Trip Generation, 11th Edition (Appendix F).

The trip generation estimate reflects residential units to be single-family (detached) dwelling units to reflect a worst-case traffic scenario.

Adjustments were made to account for internal capture and retail pass-by trips generated by the River Hall CPD/RPD.

To estimate the internal capture between the residential units and the commercial uses, the internal trip capture rates from the ITE Trip Generation Handbook, 3rd Edition were applied (Appendix F). Internal capture rates assumed for amenity/golf uses are consistent with those used in previous River Hall traffic studies.

The residential trip interaction with the elementary school is based upon the field-measured school/residential peak hour trip capture (daily capture assumes 0.5% of total River Hall CPD/RPD traffic).

The retail pass-by trips were derived based on the ITE Trip Generation Handbook, 3rd Edition. The ITE estimate of the average pass-by rate for retail is 34% which was applied in the trip generation analysis.

The trip generation estimates are summarized in Exhibits 3 and 4 for the Project with the current zoning and the Project with the proposed amendment, respectively. The resultant trip generation analysis is summarized in the following diagram.

River Hall Proposed Amendment versus Current Zoning Development (Net New Auto Trips)			
Scenario	AM Peak	PM Peak	Daily
Project with Current Zoning	1,482	2,172	20,407
Project with Proposed Amendment	1,713	2,554	24,007
Trip Difference With Proposed Development	+231	+382	+3,600
% Difference	+15.6%	+17.6%	+17.6%

The development allowed under the proposed amendment is expected to generate 231, 382, and 3,600 more net new external trips during the AM peak hour, PM peak hour, and on a weekday, respectively, as compared to the development allowed under the current zoning.

Project Trip Distribution / Assignment

Project trips associated with the current zoning and proposed amendment were distributed to the external road network using percentages derived from the River Hall CPA travel model runs (select zone analysis). Project trip distribution and assignment on a segment basis for future conditions with the current zoning and proposed amendment is provided in Exhibits 5 and 6, respectively. The resultant AM and PM peak hour trip assignment at the Project entrance for future conditions

with the current zoning and proposed amendment is provided in Exhibits 7 and 8.

A summary of the Project trip generation and entrance assignment is provided in the following.

River Hall Proposed Amendment versus Current Zoning Development Project Entrance Trip Assignment						
Trip Type	Current Zoning			Proposed Amendment		
	AM Peak	PM Peak	Daily	AM Peak	PM Peak	Daily
Total Trips	1,680	2,559	24,227	1,885	2,877	27,257
Internal Capture within CPD/RPD	160	338	3,328	144	290	2,894
Trips To/From School	18	5	122	18	5	136
Total External Trips	1,502	2,216	20,777	1,732	2,582	24,227
External Trips To/From SR 80	1,481	2,186	20,492	1,696	2,541	23,844
External Trips To/From Secondary Access	21	30	285	27	41	383

Total Future Traffic

To summarize, total future traffic volumes are derived by: 1) subtracting existing River Hall CPD/RPD traffic from existing roadway volumes; 2) projecting future background traffic volumes using growth factors calculated from historic growth trends; 3) assigning pass-through traffic associated from the secondary access; and 4) assigning trips generated from the River Hall CPD/RPD reflective of full buildout conditions.

Total future traffic on a segment basis for future conditions with the current zoning and proposed amendment are provided in Exhibits 5 and 6. Total AM and PM future traffic at the Project entrance for future conditions with the current zoning and proposed amendment is provided in Exhibits 9 and 10; the complete documentation for future intersection volumes is provided in Appendix G.

Future Traffic Conditions with Current Zoning

Future 2026 traffic conditions with the Project's current zoning for the roadway segments and intersections under study are provided below.

Future Roadway LOS - Current Zoning

The roadway level of service (LOS) analysis of future 2026 conditions with the current zoning is presented in Exhibit 5 and summarized in the following.

River Hall Future Traffic Conditions - Current Zoning Roadway Level of Service			
Roadway	From	To	LOS
Buckingham Rd.	SR 82	Gunnery Rd.	C
	Gunnery Rd.	Orange River Blvd.	C
	Orange River Blvd.	SR 80	F ⁽¹⁾
Cemetery Rd.	Buckingham Rd.	Higgins Ave.	D
North River Rd.	SR 31	Franklin Lock Rd.	C
	Franklin Lock Rd.	Broadway Rd.	C
Olga Rd.	SR 80 W	SR 80 E	C
Orange River Blvd.	Staley Rd.	Buckingham Rd.	D
SR 31 (Babcock Ranch Rd.)	SR 80	SR 78	D
	SR 78	Old Rodeo Dr.	D
SR 80 (Palm Beach Blvd.)	CR 80B (Ortiz Ave.)	I-75	C
	I-75	SR 31	C
	SR 31	Buckingham Rd	F ⁽¹⁾
	Buckingham Rd	River Hall Pkwy.	F ⁽¹⁾
	River Hall Pkwy.	Werner Drive	C
	Werner Drive	Joel Blvd.	D ⁽¹⁾
	Joel Blvd.	Hendry County Line	C

Footnote:

(1) Transportation Deficient per Chapter 163.3180, F.S.

As shown above, there are several roadway segments within the study area that are expected operate at below the adopted LOS standards/targets, coincident with future 2026 traffic conditions without the proposed River Hall zoning amendment. These roadway deficiencies have been anticipated for over a decade and are considered to be “Transportation Deficient” per Chapter 163.3180, F.S. In addition, the influx of recent population increases in Lee County and the reduced FDOT service volumes have exacerbated the LOS issues in the study area. As such, River Hall is not responsible to help reduce or eliminate these deficiencies.

Future Intersection LOS - Current Zoning

Intersection capacity analysis was performed for the Project entrance reflective of the future traffic volumes presented in Exhibit 9. The operation of the intersections was evaluated based on methodologies from the Highway Capacity Manual, 6th Edition (HCM 6).

The resultant HCM analysis output sheets are included in Appendix E and summarized below. Similar to the roadway segments, the major intersections in the study area are considered to be “Transportation Deficient” per Chapter 163.3180, F.S.

River Hall Future Traffic Conditions - Current Zoning Intersection Level of Service		
Intersection	Level of Service, Peak Hour	
	AM	PM
SR 80/River Hall Parkway	C ⁽¹⁾	D ⁽¹⁾
SR 80/Buckingham Road	E ^(1,2)	F ^(1,2)
SR 80/SR 31	F ^(1,2)	F ^(1,2)

Footnote:

(1) Signalized - Overall LOS reported.

(2) Transportation Deficient per Chapter 163.3180, F.S.

Future Traffic Conditions with Proposed Amendment

Future 2026 traffic conditions with the Project's proposed amendment for the roadway segments and intersections under study are provided below.

Future Roadway LOS – Proposed Amendment

The roadway level of service (LOS) analysis of future 2026 conditions with the proposed amendment is presented in Exhibit 6 and summarized in the following diagram.

River Hall Future Traffic Conditions - Proposed Amendment Roadway Level of Service			
Roadway	From	To	LOS
Buckingham Rd.	SR 82	Gunnery Rd.	C
	Gunnery Rd.	Orange River Blvd.	C
	Orange River Blvd.	SR 80	F ⁽¹⁾
Cemetery Rd.	Buckingham Rd.	Higgins Ave.	D
North River Rd.	SR 31	Franklin Lock Rd.	C
	Franklin Lock Rd.	Broadway Rd.	C
Olga Rd.	SR 80 W	SR 80 E	C
Orange River Blvd.	Staley Rd.	Buckingham Rd.	D
SR 31 (Babcock Ranch Rd.)	SR 80	SR 78	D
	SR 78	Old Rodeo Dr.	D
SR 80 (Palm Beach Blvd.)	CR 80B (Ortiz Ave.)	I-75	C
	I-75	SR 31	C
	SR 31	Buckingham Rd	F ⁽¹⁾
	Buckingham Rd	River Hall Pkwy.	F ⁽¹⁾
	River Hall Pkwy.	Werner Drive	C
	Werner Drive	Joel Blvd.	D ⁽¹⁾
	Joel Blvd.	Hendry County Line	C

Footnote:

(1) Transportation Deficient per Chapter 163.3180, F.S.

As shown above, there are several roadway segments within the study area that are expected operate at below the adopted LOS standards/targets, coincident with future 2026 traffic conditions

with the proposed River Hall zoning amendment. These roadway deficiencies have been anticipated for over a decade and are considered to be “Transportation Deficient” per Chapter 163.3180, F.S. As such, River Hall will not trigger additional deficiencies and therefore, will not be responsible to help reduce or eliminate those same deficiencies.

Future Intersection LOS - Proposed Amendment

Intersection capacity analysis was performed for the Project entrance reflective of the future traffic volumes presented in Exhibit 10. The operation of the intersections was evaluated based on methodologies from the Highway Capacity Manual, 6th Edition (HCM 6). The resultant HCM analysis output sheets are included in Appendix E and summarized below.

River Hall Future Traffic Conditions - Proposed Amendment Intersection Level of Service		
Intersection	Level of Service, Peak Hour	
	AM	PM
SR 80/River Hall Parkway	D ⁽¹⁾	E ^(1,2)
SR 80/Buckingham Road	F ^(1,3)	F ^(1,3)
SR 80/SR 31	F ^(1,3)	F ^(1,3)

Footnote:

- (1) Signalized - Overall LOS reported.
- (2) SR 80 meets FDOT LOS target at LOS D.
- (3) Transportation Deficient per Chapter 163.3180, F.S.

The additional residential units included in the proposed amendment do not cause additional intersection failures on the road network when compared to the approved development allowed under the current zoning.

For the two intersections that are forecasted to operate at LOS F (without and with the proposed amendment), additional analysis was conducted to identify the intersection improvements needed to achieve an overall LOS E or better. This analysis is provided in Appendix E.

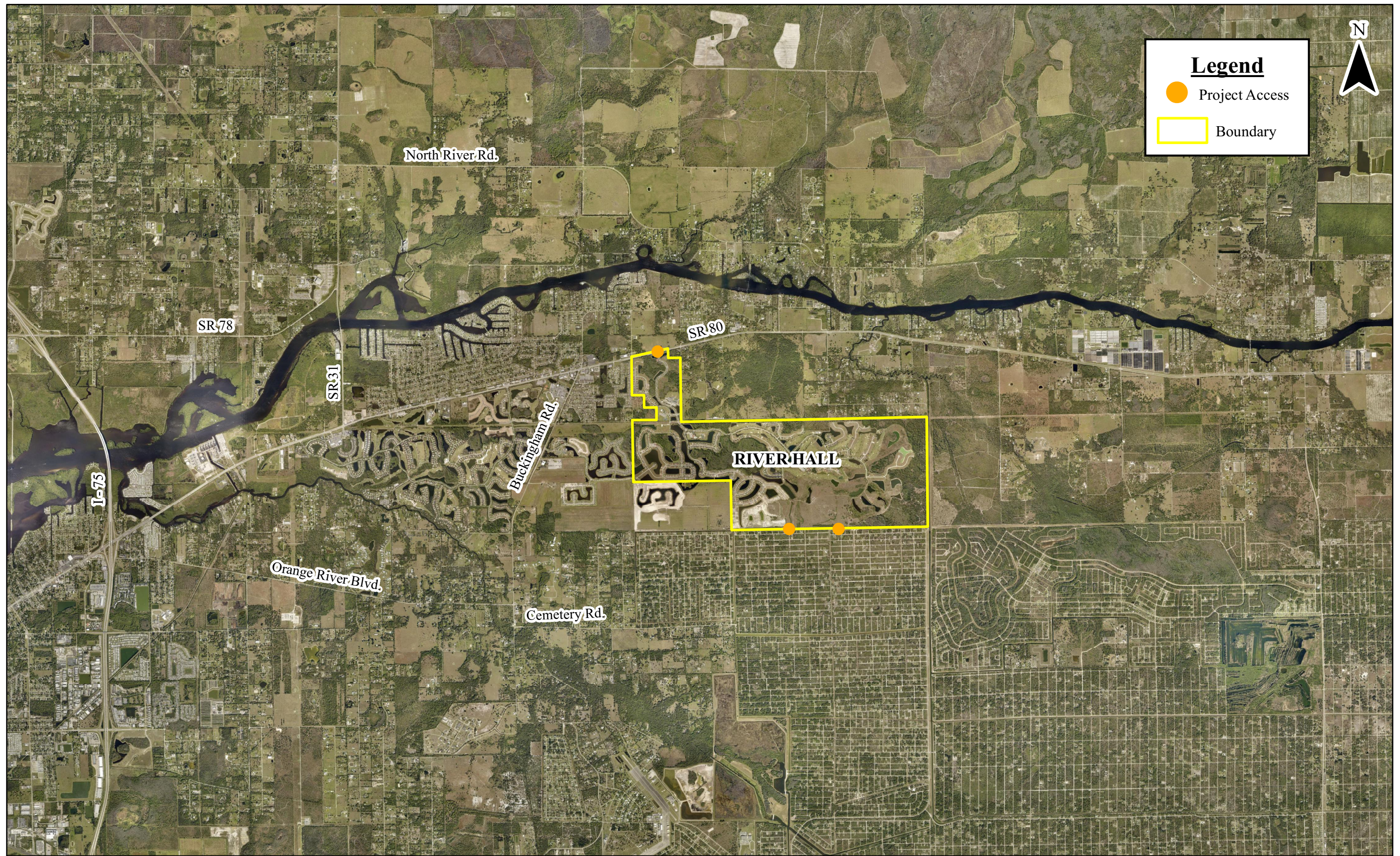
Traffic Mitigation

The applicant will meet Lee County requirements regarding the payment of road impact fees at the time of development order application. Road impact fees can be used by Lee County to fund road and/or intersection improvements needed to support all area development, including River Hall.

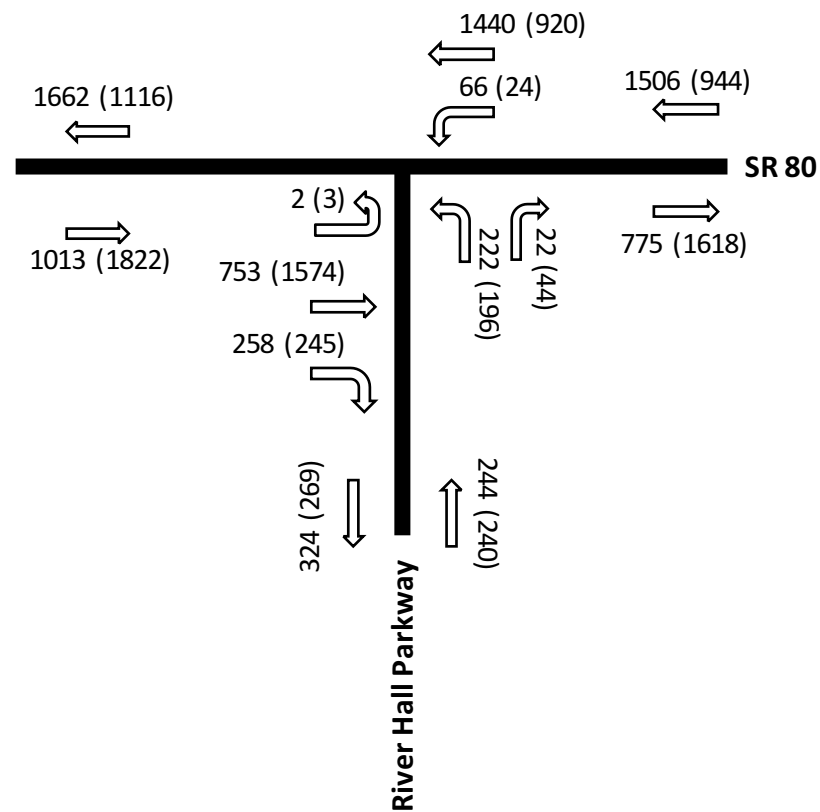
Conclusions

The conclusions of this ZTIS are as follows.

- The development proposes to add 549 residential units, a 20% increase over the currently approved 2,695 residential units.
- A simultaneous decrease of 30,000 square feet of commercial use is also proposed.
- The Project's trip generation is expected to increase by less than 18% over the currently approved zoning.
- The resultant increase in the Project's trip generation will not trigger additional roadway facility deficiencies than already anticipated without the proposed zoning amendment.
- River Hall will fully mitigate its offsite transportation impacts through the payment of Lee County Road Impact Fees at the time of development order application.
- Lee County and FDOT are encouraged to program the necessary roadway improvements to maintain the adopted LOS standards/targets of the surrounding roadway network.



	RIVER HALL CPD/RPD PD AMENDMENT	PROJECT LOCATION AND EXISTING ROAD NETWORK	DATE	PROJECT NO.	FILE NO.	EXHIBIT
			10/21	20512	A-1/1021	1



LEGEND
00 AM PEAK
(00) PM PEAK



RIVER HALL CPD/RPD
PLANNED DEVELOPMENT AMENDMENT
TRAFFIC IMPACT STATEMENT

EXISTING 2021
PEAK HOUR TRAFFIC VOLUMES

20512/0623

EXHIBIT
2

EXHIBIT 3**RIVER HALL CPD/RPD
PLANNED DEVELOPMENT AMENDMENT****TRIP GENERATION - WITH CURRENT ZONING⁽¹⁾**

River Hall CPD/RPD Cumulative Development To-Date				LUC	SIZE	UNITS	AM PEAK HOUR					PM PEAK HOUR					DAILY						
Office						Rate/Equation	In	Out	Total	%	Rate/Equation	In	Out	Total	%	Rate/Equation	In	Out	Total	%			
General Office Building (General Urban/Suburban)	710	15,000	1000 Sq. Ft. GFA	Fitted Curve	88%	29	12%	4	33		Fitted Curve	17%	6	83%	28	34	Fitted Curve	50%	112	50%	111	223	
Trips						29		4	33				6		28	34		112		111	223		
NCHRP Internal Capture ⁽²⁾						2		1	3	9%			5		7	12	35%	52		51	103	22%	
Non-NCHRP Internal Capture						0		0	0	0%			0		0	0	0%	0		0	0	0%	
Net New External						27		3	30				1		21	22		60		60	120		
Retail																							
Strip Retail Plaza (General Urban/Suburban)	822	30,000	1000 Sq. Ft. GLA	Average	60%	43	40%	28	71		Fitted Curve	50%	85	50%	85	170		Fitted Curve	50%	748	50%	748	1,496
Trips						43		28	71				85		85	170		748		748	1,496		
NCHRP Internal Capture ⁽²⁾						8		5	13	18%			15		24	39	23%	154		152	306	20%	
Non-NCHRP Internal Capture ⁽⁴⁾						0		0	0	0%			0		0	0	0%	0		0	0	0%	
External						35		23	58				70		61	131		594		596	1,190		
Pass-by						10		10	20	34%			22		22	44	34%	185		185	370	31%	
Net New External						25		13	38				48		39	87		409		411	820		
Residential																							
Single-Family Detached Housing (General Urban/Suburban)	210	2,695	Dwelling Units	Fitted Curve	26%	388	74%	1,105	1,493		Fitted Curve	63%	1,385	37%	813	2,198		Fitted Curve	50%	10,447	50%	10,447	20,894
Trips						388		1,105	1,493				1,385		813	2,198		10,447		10,447	20,894		
NCHRP Internal Capture ⁽²⁾						4		8	12	1%			23		12	35	2%	168		167	335	2%	
Non-NCHRP Internal Capture ⁽⁴⁾						18		48	66	4%			57		69	126	6%	646		646	1,292	6%	
Net New External						366		1,049	1,415				1,305		732	2,037		9,633		9,634	19,267		
Ancillary																							
Golf Course (General Urban/Suburban)	430	36	Holes	Average	79%	50	21%	13	63		Average	53%	56	47%	49	105		Average	50%	547	50%	547	1,094
Health/Fitness Club (General Urban/Suburban)	492	15,217	1000 Sq. Ft. GFA	Average	51%	10	49%	10	20		Average	57%	30	43%	22	52		Custom	50%	260	50%	260	520 ⁽⁵⁾
Trips						60		23	83				86		71	157		807		807	1,614		
Non-NCHRP Internal Capture						48		18	66	80%			69		57	126	80%	646		646	1,292	80%	
Net New External						12		5	17				17		14	31		161		161	322		
TOTAL						In		Out	Total	%		In		Out	Total	%		In		Out	Total	%	
NCHRP INTERNAL CAPTURE ⁽²⁾						520		1,160	1,680			1,562		997	2,559			12,114		12,113	24,227		
NON-NCHRP INTERNAL CAPTURE ⁽⁴⁾						14		14	28	2%		43		43	86	3%		374		370	744	3%	
TRIPS TO/FROM SCHOOL ⁽⁶⁾						66		66	132	8%		126		126	252	10%		1,292		1,292	2,584	11%	
EXTERNAL						16		2	18	1%		2		3	5	0.2%		61		61	122	0.5%	
PASS-BY - AUTOMOBILE TRIPS ⁽¹⁾						424		1,078	1,502			1,391		825	2,216			10,387		10,390	20,777		
NET NEW EXTERNAL AUTOMOBILE TRIPS						10		10	20	1%		22		22	44	2%		185		185	370	2%	
						414		1,068	1,482			1,369		803	2,172			10,202		10,205	20,407		

Footnote:

- (1) Trip generation estimate based on ITE *Trip Generation* (11th Edition). A fitted curve equation used if available and applicable per ITE guidelines.
- (2) Consistent with NCHRP internal capture calculations. ITE, *Trip Generation Handbook - An ITE Proposed Recommended Practice* (3rd Edition). Chapter 6 - Trip Generation for Mixed-Use Development.
- (3) ITE, *Trip Generation Handbook - An ITE Proposed Recommended Practice* (3rd Edition). Appendix E - Database on Pass-By, Diverted, and Primary Trips.
- Average rate assumed and reduced to ensure pass-by does not exceed 10% of adjacent street traffic, where needed.
- (4) Includes land use categories not applicable under NCHRP internal capture calculations.
- (5) ITE 11th Edition does not offer weekday trip generation rates for LUC 492 Health/Fitness Club. Rate developed based on the assumption that PM peak hour is 10% of the daily total trip generation.
- (6) Trips to/from River Hall Elementary School are based on existing turning movement counts. Daily trip interaction rate is assumed to be 0.5% of total daily trips.

EXHIBIT 4**RIVER HALL CPD/RPD
PLANNED DEVELOPMENT AMENDMENT****TRIP GENERATION - WITH PD AMENDMENT⁽¹⁾**

River Hall CPD/RPD Cumulative Development To-Date				LUC	SIZE	UNITS	AM PEAK HOUR					PM PEAK HOUR					DAILY										
Retail				Rate/Equation	In	Out	Total	%	Rate/Equation	In	Out	Total	%	Rate/Equation	In	Out	Total	%									
Trips	Strip Retail Plaza (General Urban/Suburban)	822	15,000	1000 Sq. Ft. GLA	Average	60%	21	40%	14	35				Fitted Curve	50%	52	50%	52	104			Fitted Curve	50%	432	50%	431	863
							21		14	35						52		52	104				432		431	863	
	NCHRP Internal Capture ⁽²⁾						4		2	6	17%					5		14	19	18%			78		77	155	18%
	Non-NCHRP Internal Capture ⁽⁴⁾						0		0	0	0%					0		0	0	0%			0		0	0	0%
	External						17		12	29						47		38	85			354		354	708		
	Pass-by						5		5	10	34%					14		14	28	33%			110		110	220	31%
	Net New External						12		7	19						33		24	57			244		244	488		
Residential																											
Trips	Single-Family Detached Housing (General Urban/Suburban)	210	3,244	Dwelling Units	Fitted Curve	26%	459	74%	1,308	1,767				Fitted Curve	63%	1,648	37%	968	2,616			Fitted Curve	50%	12,390	50%	12,390	24,780
							459		1308	1,767						1648		968	2,616				12390		12390	24,780	
	NCHRP Internal Capture ⁽²⁾						2		4	6	0%					14		5	19	1%			78		77	155	1%
	Non-NCHRP Internal Capture ⁽⁴⁾						18		48	66	4%					57		69	126	5%			646		646	1,292	5%
	Net New External						439		1,256	1,695						1,577		894	2,471				11,666		11,667	23,333	
Ancillary																											
Trips	Golf Course (General Urban/Suburban)	430	36	Holes	Average	79%	50	21%	13	63				Average	53%	56	47%	49	105			Average	50%	547	50%	547	1,094
	Health/Fitness Club (General Urban/Suburban)	492	15,217	1000 Sq. Ft. GFA	Average	51%	10	49%	10	20				Average	57%	30	43%	22	52			Custom	50%	260	50%	260	520 ⁽⁵⁾
							60		23	83						86		71	157				807		807	1,614	
	Non-NCHRP Internal Capture						48		18	66	80%					69		57	126	80%			646		646	1,292	80%
	Net New External						12		5	17						17		14	31				161		161	322	
TOTAL							In		Out	Total	%					In		Out	Total	%			In		Out	Total	%
	NCHRP INTERNAL CAPTURE ⁽²⁾						540		1,345	1,885						1,786		1,091	2,877				13,629		13,628	27,257	
	NON-NCHRP INTERNAL CAPTURE ⁽⁴⁾						6		6	12	1%					19		19	38	1%			156		154	310	1%
	TRIPS TO/FROM SCHOOL ⁽⁶⁾						66		66	132	7%					126		126	252	9%			1,292		1,292	2,584	9%
	EXTERNAL						16		2	18	1%					2		3	5	0.2%			68		68	136	0.5%
	PASS-BY - AUTOMOBILE TRIPS ⁽³⁾						452		1,271	1,723						1,639		943	2,582				12,113		12,114	24,227	
	NET NEW EXTERNAL AUTOMOBILE TRIPS						5		5	10	1%					14		14	28	1%			110		110	220	1%
							447		1,266	1,713						1,625		929	2,554				12,003		12,004	24,007	

Footnote:

- (1) Trip generation estimate based on ITE Trip Generation (11th Edition). A fitted curve equation used if available and applicable per ITE guidelines.
- (2) Consistent with NCHRP internal capture calculations. ITE, Trip Generation Handbook - An ITE Proposed Recommended Practice (3rd Edition). Chapter 6 - Trip Generation for Mixed-Use Development.
- (3) ITE, Trip Generation Handbook - An ITE Proposed Recommended Practice (3rd Edition). Appendix E - Database on Pass-By, Diverted, and Primary Trips.
- Average rate assumed and reduced to ensure pass-by does not exceed 10% of adjacent street traffic, where needed.
- (4) Includes land use categories not applicable under NCHRP internal capture calculations.
- (5) ITE 11th Edition does not offer weekday trip generation rates for LUC 492 Health/Fitness Club. Rate developed based on the assumption that PM peak hour is 10% of the daily total trip generation.
- (6) Trips to/from River Hall Elementary School are based on existing turning movement counts. Daily trip interaction rate is assumed to be 0.5% of total daily trips.

EXHIBIT 5

RIVER HALL CPD/RPD
PLANNED DEVELOPMENT AMENDMENT
TRAFFIC IMPACT STATEMENT

FUTURE 2026 TRAFFIC CONDITIONS WITH CURRENT ZONING
DIRECTIONAL PEAK HOUR

ROADWAY	DIRPM Node		# of Lanes ⁽¹⁾	State/ County	Existing LOS Facility Type ⁽²⁾	LOS Std ⁽³⁾	FDOT Station ⁽⁴⁾	K Factor ⁽⁵⁾	D Factor ⁽⁶⁾	Existing Traffic		Existing River Hall CPD/RPD Traffic ⁽⁷⁾		Without River Hall CPD/RPD		2026 Background		Future River Hall Pkwy Pass-Thru Traffic (Non-PD/School Trips) ⁽¹⁰⁾				Future River Hall CPD/RPD Traffic ⁽¹¹⁾				Total Future		Directional Service Volumes ⁽¹⁴⁾						Project Traffic % of SV @ LOS C	Significance of Impact ⁽¹⁵⁾	Lanes Needed	Additional Lanes Needed												
	Numbers A _i	B _i								Dir. Peak Hr. Vol. NB/EB	SB/WB	% Dist.	Peak Direction	Dir. Peak Hr. Vol. NB/EB	SB/WB	Annual Growth % ⁽⁸⁾	Growth Factor ⁽⁹⁾	Dir. Peak Hr. Vol. NB/EB	SB/WB	AADT	2045 AADT	% Dist.	Peak Direction	Dir. Peak Hr. Vol. NB/EB	SB/WB	2045 AADT	% Dist.	Peak Direction	Dir. Peak Hr. Vol. NB/EB	SB/WB	Dir. Peak Hr. Vol. NB/EB	SB/WB	LOS A					LOS B	LOS C	LOS D	LOS E	LOS Std.	V/C	LOS					
Buckingham Rd.	SR 82	Gunnery Rd.	26697	26730	2	LC	LC ClassI Arterial 2L	E	124183	0.095	0.539	420	491	1.9%	SB/WB	3	5	417	486	5.0%	1.25	521	608	2	1.4%	NB/EB	0	0	369	1.7%	NB/EB	24	14	545	622	0	140	800	860	860	860	0.72	C	3.0%	Not Significant	2	Add	0	L
	Gunnery Rd.	Orange River Blvd.	26412	26417	2	LC	LC ClassI Arterial 2L	E	126011	0.095	0.539	338	395	10.3%	SB/WB	18	22	320	373	1.8%	1.09	349	407	4	2.9%	NB/EB	0	0	2,204	10.4%	NB/EB	142	83	491	490	0	140	800	860	860	860	0.57	C	17.8%	Significant	2	Add	0	L
	Orange River Blvd.	SR 80	26567	26607	2	LC	LC ClassI Arterial 2L	E	124656	0.09	0.539	644	551	22.8%	NB/EB	50	40	594	511	3.1%	1.16	686	590	3	2.2%	SB/WB	0	0	4,892	23.0%	NB/EB	315	185	1,001	775	0	140	800	860	860	860	1.16	F	39.4%	Significant	4	Add	2	L
Cemetery Rd.	Buckingham Rd.	Higgins Ave.	26417	26703	2	LC	LC Collector 2L/U	E	124656	0.095	0.539	308	263	2.5%	NB/EB	5	5	303	258	3.1%	1.16	350	298	3	2.2%	NB/EB	0	0	612	2.9%	NB/EB	39	24	389	322	0	0	310	660	740	740	0.53	D	12.6%	Significant	2	Add	0	L
Franklin Lock Rd.	SR 31	Franklin Lock Rd.	25796	26100	2	LC	LC ClassI Arterial 2L	E	124650	0.095	0.539	145	124	0.1%	NB/EB	0	0	145	124	6.5%	1.33	192	164	0	0.0%	NB/EB	0	0	13	0.1%	SB/WB	0	1	192	165	0	140	800	860	860	860	0.22	C	0.1%	Not Significant	2	Add	0	L
North River Rd.	Franklin Lock Rd.	Broadway Rd.	27309	27426	2	LC	LC ClassI Arterial 2L	E	124650	0.095	0.539	145	124	0.0%	NB/EB	0	0	145	124	6.5%	1.33	192	164	4	2.9%	NB/EB	0	0	7	0.0%	SB/WB	0	1	192	165	0	140	800	860	860	860	0.22	C	0.1%	Not Significant	2	Add	0	L
	SR 80 E	Buckingham Rd.	26607	26626	2	LC	LC Collector 2L/U	E	126011	0.09	0.539	82	70	2.6%	NB/EB	6	4	76	66	1.8%	1.09	83	72	16	11.5%	NB/EB	1	0	560	2.6%	SB/WB	21	36	105	108	0	0	310	660	740	740	0.15	C	11.6%	Significant	2	Add	0	L
Orange River Blvd.	Staley Rd.	Buckingham Rd.	26263	26412	2	LC	LC Collector 2L/U	E	124202	0.095	0.539	408	477	2.2%	SB/WB	4	5	404	472	4.7%	1.24	499	583	0	0.0%	NB/EB	0	0	453	2.1%	NB/EB	29	17	528	600	0	0	310	660	740	740	0.81	D	9.4%	Not Significant	2	Add	0	L
SR 31 (Babcock Ranch Rd.)	SR 78	Old Rodeo Dr.	25807	25808	2	FDOT	C3C 2L 2W U WL WR	D	120030	0.09	0.521	701	763	19.6%	SB/WB	34	43	667	720	2.0%	1.10	737	795	96	69.1%	SB/WB	5	4	4,061	19.1%	SB/WB	154	261	896	1,060	0	0	838	1,180	0	1,180	0.90	D	31.1%	Significant	2	Add	0	L
	SR 78	Old Rodeo Dr.	25794	20135	2	FDOT	C3C 2L 2W U WL WR	D	120030	0.09	0.521	602	655	10.3%	SB/WB	18	23	584	632	2.0%	1.10	645	698	46	33.1%	SB/WB	2	2	2,177	10.2%	SB/WB	82	141	729	841	0	0	838	1,180	0	1,180	0.71	D	16.8%	Significant	2	Add	0	L
SR 80 (Palm Beach Blvd.)	CR 80B (Ortiz Ave.)	I-75	24345	24438	6	FDOT	C3R 6L 2W D WL WR	D	125020	0.09	0.537	1,071	1,242	15.4%	SB/WB	27	34	1,044	1,208	1.0%	1.04	1,086	1,256	0	0.0%	NB/EB	0	0	3,000	14.1%	NB/EB	193	114	1,279	1,370	0	0	2,889	3,010	0	3,010	0.46	C	6.7%	Not Significant	4	Add	0	L
	I-75	SR 31 (Babcock Ranch Rd.)	25762	25808	6	FDOT	C3R 6L 2W D WL WR	D	126005	0.09	0.521	1,486	1,616	32.9%	SB/WB	57	72	1,429	1,544	2.2%	1.09	1,554	1,680	4	2.9%	NB/EB	0	0	6,718	31.6%	NB/EB	433	254	1,987	1,934	0	0	2,889	3,010	0	3,010	0.66	C	15.0%	Significant	4	Add	0	L
SR 31 (Babcock Ranch Rd.)	Buckingham Rd	Buckingham Rd	26393	26607	4	FDOT	C3R 4L 2W D WL WR	D	120085	0.09	0.521	1,878	2043	56.6%	SB/WB	99	124	1,779	1,919	1.5%	1.06	1,886	2,034	107	77.0%	NB/EB	5	5	11,669	54.9%	NB/EB	752	441	2,643	2,480	0	0	1,874	2,040	0	2,040	1.30	F	40.1%	Significant	6	Add	2	L
	Buckingham Rd	River Hall Pkwy.	26783	89956	4	FDOT	C3R 4L 2W D WL WR	D	120012	0.09	0.521	1426	1,311	84.7%	NB/EB	185	148	1,241	1,163	2.1%	1.08	1,345	1,261	118	84.9%	NB/EB	5	6	17,670	83.2%	NB/EB	1,139	668	2,489	1,935	0	0	1,874	2,040	0	2,040	1.22	F	60.8%	Significant	6	Add	2	L
	W. of Werner Drive	W. of Werner Drive	89956	26949	4	FDOT	C3R 4L 2W D WL WR	D	120012	0.09	0.521	1426	1,311	15.3%	NB/EB	34	26	1,392	1,285	2.1%	1.08	1,509	1,393	22	15.8%	NB/EB	1	1	3,276	15.4%	SB/WB	124	211	1,634	1,605	0	0	1,874	2,040	0	2,040	0.80	C	11.3%	Significant	4	Add	0	L
	W. of Werner Drive	Joel Boulevard	27174	26290	4	FDOT	C2T 4L 2W D WL OR	C	120012	0.09	0.521	1,179	1,084	11.8%	NB/EB	26	20	1,153	1,064	2.1%	1.08	1,250	1,153	4	2.9%	NB/EB	0	0	2,549	12.0%	SB/WB	96	165	1,346	1,318	0	0	1,257	1,808	0	1,257	1.07	D	13.1%	Significant	6	Add	2	L
	Joel Boulevard	Hendry County Line	27861	28224	4	FDOT	C2T 4L 2W D WL OR	C	120086	0.095	0.521	1053	968	5.1%	NB/EB	11	9	1,042	959	4.0%	1.16	1,209	1,113	0	0.0%	NB/EB	0	0	1,104	5.2%	SB/WB	42	71	1,251	1,184	0	0	1,257	1,808	0	1,257	1.00	C	5.6%	Not Significant	4	Add	0	L

River Hall CPD/RPD - Existing Field Measured Trips

Inbound 219
Outbound 174
Total 393

Future River Hall Pkwy Pass-Thru Traffic (Non-PD/School) - Model Derived

Northbound 6
Southbound 7
Total 13

River Hall CPD/RPD - Future External Trips (ITE 11th Trip Generation Estimate)

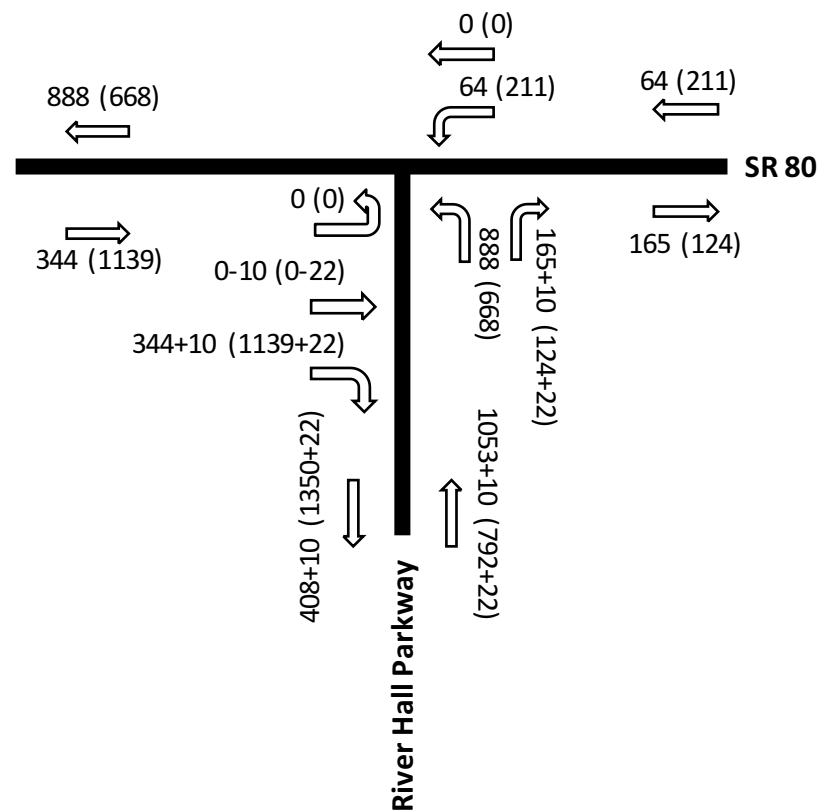
Inbound 1,369
Outbound 803
Total 2,172

FOOTNOTES:

- (1) Existing number of lanes.
(2) LOS Facility Type for Service Volumes. Adjustments made consistent with FDOT District 1 2020 LOS Report for State roadways.
(3) LOS standard for Lee County roadways is LOS E. LOS standard used for FDOT roadways is LOS D for urbanized and LOS C for non-urbanized.
(4) FDOT count station from FDOT Traffic Online.
(5) Standard K factor, and existing D factor referenced from the FDOT Florida Traffic Online (2022). Peak direction based on PM peak hour direction from co-site synopsis report.
(6) For Lee County Roads: directional peak hour volumes sourced from 2022 Public Facilities Level of Service and Concurrence Report For State Roads: directional peak hour volumes derived from traffic data sourced from FDOT 2022 Florida Traffic Online.
(7) Distribution based on 2045 model run select zone assignment (TAZs #4501, #4502, and #4503). Adjustments made to account for secondary entrance not being constructed under existing conditions. Project directional peak hour volume equals Project distribution multiplied by field-measured PM peak hour trip generation (peak direction).
(8) Linear growth rate. Growth rate developed from FDOT Traffic Online (2022 data).
(9) Linear growth rate multiplied by the number of years from 2019 to 2026 (7 years) for County roads and from 2020 to 2026 (6 years) for State roads.
(10) Year 2026 background directional volume equals existing directional volume multiplied by growth factor.
(11) Pass-through traffic was estimated by converting 2045 model daily volumes to peak hour directional volumes using FDOT K and D factors; pass through trips were assigned to the study area based on distributions derived from peak link analysis in the 2045 travel model.
(12) Distribution based on 2045 model run select zone assignment (TAZs #4501, #4502, and #4503). Project directional peak hour volume equals Project distribution multiplied by ITE PM peak hour trip generation estimate (peak direction).
(13) Future 2026 peak hour directional volume equals future background traffic + pass-through traffic + Project traffic.
(14) Lee County Generalized Peak Hour Service Volumes (April 2016) used for County roads. FDOT Generalized Peak Hour Directional Volumes used for State roads.
(15) Per Lee County AC-13-17, significant impact is defined as Project traffic consuming 10% or more of the service volume at LOS C.

**FUTURE 2026 TRAFFIC CONDITIONS WITH PD AMENDMENT
DIRECTIONAL PEAK HOUR**

- (1) Existing number of lanes.
- (2) LOS Facility Type for Service Volumes. Adjustments made consistent with FDOT District 1 2020 LOS Report for State roadways.
- (3) LOS standard for Lee County roadways is LOS E. LOS standard used for FDOT roadways is LOS D for urbanized and LOS C for rural.
- (4) FDOT count station from FDOT Traffic Online.
- (5) FDOT count station from FDOT Traffic Online.
- (6) For Lee County Roadways: directional peak hour volumes sourced from 2020 Facilities Level of Service and Concurrence Report.
- (7) Distribution based on 2045 model run select zone assignment (TAZs #4501, #4502, and #4503). Adjustments made to account for growth.
- (8) Linear growth rate. Growth rate developed from FDOT Traffic Online (2020 data).
- (9) Linear growth rate multiplied the number of years from 2018 to 2026 (7 years) for Lee County roads and from 2020 to 2026 (6 years) for Lee County roadways.
- (10) Year 2026 background directional volume equals existing directional volume multiplied by growth factor.
- (11) Pass-through traffic was estimated by converting 2045 model daily volumes to peak hour directional volumes using FDOT K and V.
- (12) Distribution based on 2045 model run select zone assignment (TAZs #4501, #4502, and #4503). Projectal directional peak hour volumes.
- (13) Future 2026 peak hour directional volume equals future background traffic + pass-through traffic + Projectal traffic.
- (14) Linear growth rate multiplied the number of years from 2018 to 2026 (7 years) for Lee County roads and from 2020 to 2026 (6 years) for Lee County roadways.
- (15) Per Lee County AC-13.17, significant impact is defined as Project traffic passing 10% or more of the service volume at LOS C or D.

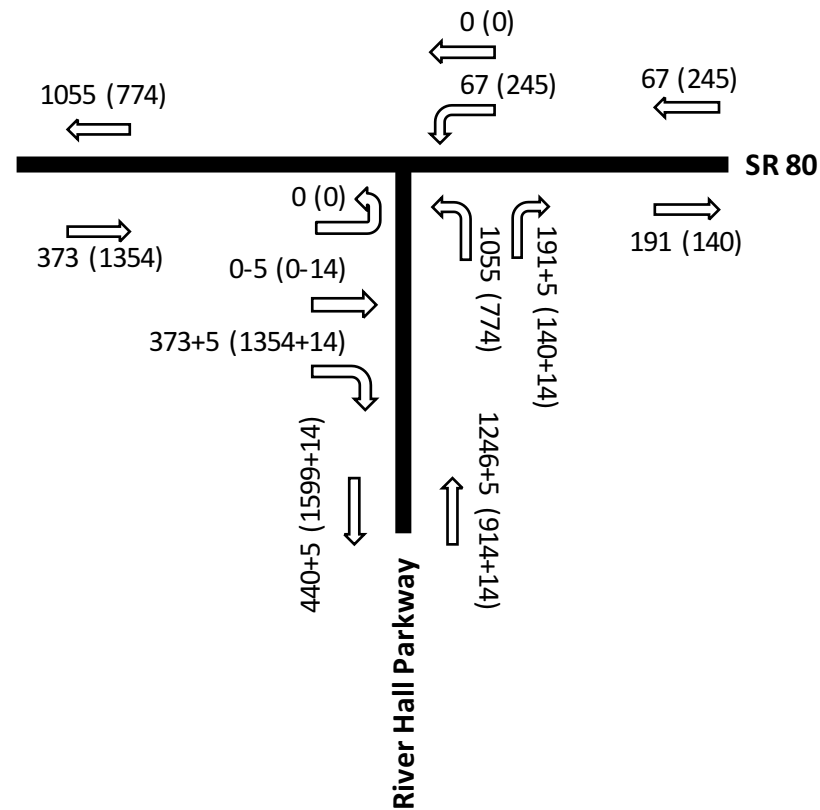


RIVER HALL CPD/RPD
PLANNED DEVELOPMENT AMENDMENT
TRAFFIC IMPACT STATEMENT

FUTURE 2026
RIVER HALL CPD/RPD TRIP ASSIGNMENT
WITH CURRENT ZONING

20512/1020

EXHIBIT
7

**LEGEND**

Net New ± Pass-by
00 AM PEAK
(00) PM PEAK

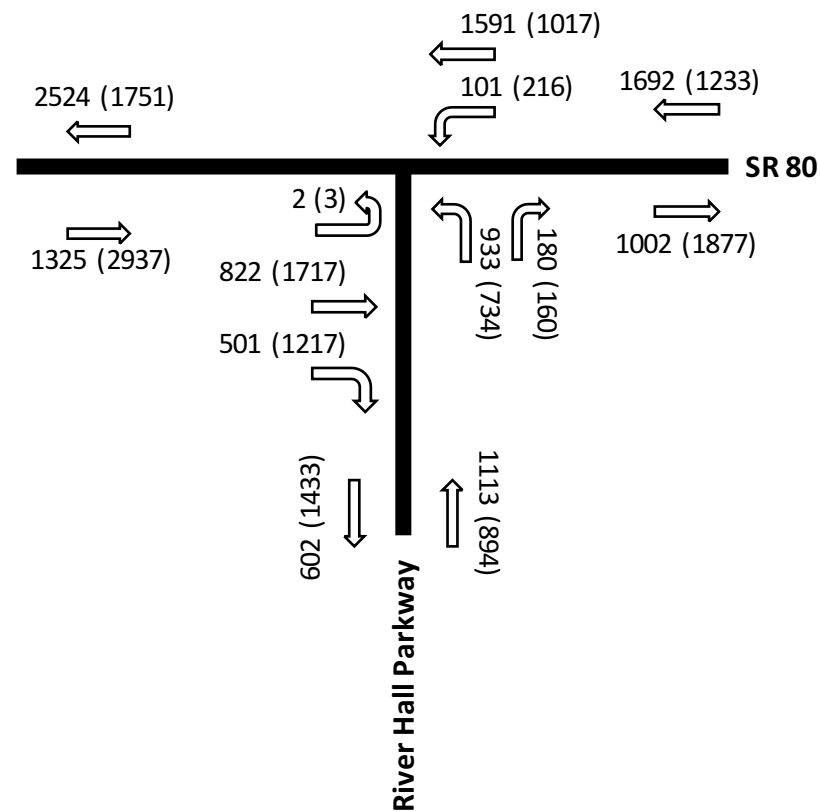


RIVER HALL CPD/RPD
PLANNED DEVELOPMENT AMENDMENT
TRAFFIC IMPACT STATEMENT

FUTURE 2026
RIVER HALL CPD/RPD TRIP ASSIGNMENT
WITH PROPOSED AMENDMENT

20512/1020

EXHIBIT
8



LEGEND
00 AM PEAK
(00) PM PEAK

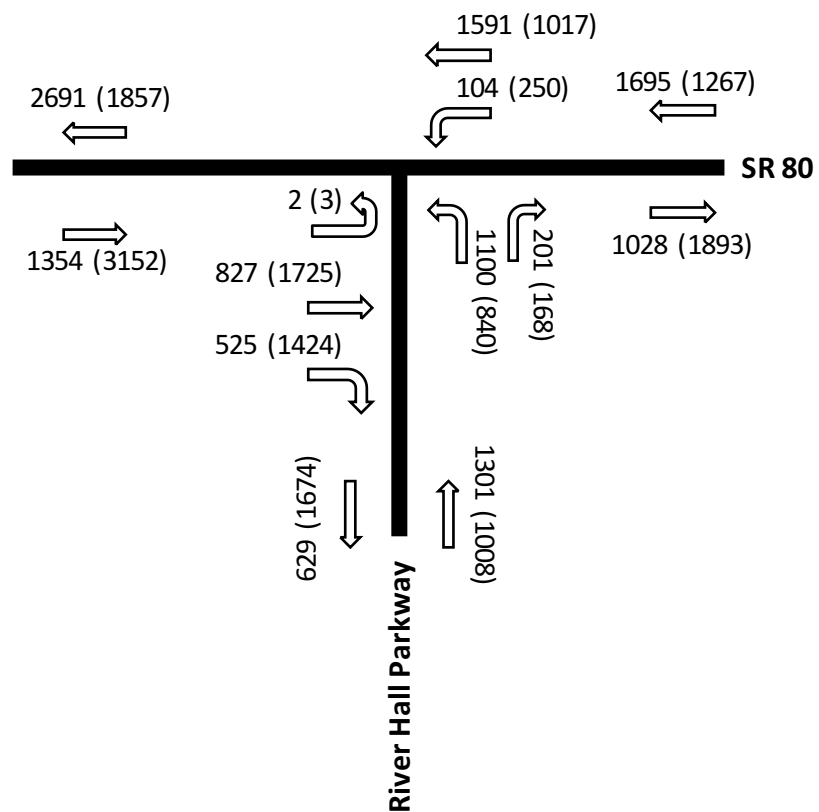


RIVER HALL CPD/RPD
PLANNED DEVELOPMENT AMENDMENT
TRAFFIC IMPACT STATEMENT

FUTURE 2026
TOTAL PEAK HOUR TRAFFIC VOLUMES
WITH CURRENT ZONING

20512/1020

EXHIBIT
9



LEGEND
00 AM PEAK
(00) PM PEAK

20512/1020



RIVER HALL CPD/RPD
PLANNED DEVELOPMENT AMENDMENT
TRAFFIC IMPACT STATEMENT

FUTURE 2026
TOTAL PEAK HOUR TRAFFIC VOLUMES
WITH PROPOSED AMENDMENT

EXHIBIT
10

APPENDIX A

LEE COUNTY ADMINISTRATIVE CODE AC-13-17

**ADMINISTRATIVE CODE
BOARD OF COUNTY COMMISSIONERS**

CATEGORY:

Development/Planning/Zoning

CODE NUMBER:

AC-13-17

TITLE:Traffic Study Guidelines for
Planned Development Rezonings**ADOPTED:**

4/15/92

AMENDED:**ORIGINATING DEPARTMENT:**

Community Development/DOT

PURPOSE/SCOPE:**GUIDELINES FOR ZONING TRAFFIC STUDIES**

The scope of the Zoning Traffic Study (ZTS) is dependent upon vehicle trips generated, existing road network, location within Lee County, access points, and proposed facilities. It is recommended that these criteria be discussed with representatives of Lee County's Department of Transportation and Engineering (DOT&E), Department of Community Development (DCD), Division of Development Review (DDR) and other Lee County personnel (hereinafter Staff) as applicable prior to starting the preparation of the ZTS.

This administrative code replaces Chapter 1 of the Guidelines for Traffic Impact Statements written on December 11, 1989.

POLICY/PROCEDURE:

These guidelines are intended to be used by transportation professionals for determining impacts of non-DRI zoning applications only. The ZTS' are not applicable for Development Orders or Concurrency determinations. The applicant should be aware that the ZTS is utilized for a general impact analysis for the proposed project and not as a basis for a traffic mitigation plan. Modifications of specific requirements contained within these guidelines may be approved by the Director of Zoning or his/her designee only after a written request by the applicant stating the reasons for said modifications. An approval of a request for modification of these guidelines must be in writing and rendered within 30 calendar days of receipt of a fully documented written request.

Trip Generation

Trip generation calculations are necessary to determine the degree of analysis necessary for a given project; therefore, they are the minimum requirement for all projects required to produce a ZTS. Calculation of trip ends shall be made using the sources listed below in the order of preference:

- 1) Institute of Transportation Engineers (ITE) current edition of Trip Generation;
or
- 2) Generation rates derived from observation of trips at similar developments as outlined in the Independent Fee Calculation Administrative Code; or

AC-13-17 Continued

- 3) Trip generation as approved by Staff in a methodology meeting as requested by the applicant.

Trip generation rates shall be calculated using the linear regression equation, unless it can be shown using ITE's "Guidelines for Determining Whether to Use Trip Generation, Rates or Equations" that average trip generation rates provide a more accurate estimate of project impacts. Trip ends shall include annual daily traffic (ADT's) and peak hour traffic (PHT's) for a typical week day. Weekends should be included if applicable. The ADT is defined as the weighted average vehicle trip generation rate during the applicable 24-hour period. The peak hours (AM and PM) are defined as the highest one-hour weighted average vehicle trip generation rate between 7 and 9 AM or between 4 and 6 PM when the adjacent street traffic is at its peak.

Capacity calculations require the projection of peak hour, peak Season traffic volumes. Background traffic shall be calculated from DOT&E traffic counts, or traffic counts made in accordance with ITE guidelines or other methods approved by Staff. Growth projections shall be calculated in accordance with DOT&E guidelines or other methods as approved by Staff.

Analysis

All rezoning requested required to produce a ZTS shall provide the following, minimum information:

- 1) The intensity of development (number of units, gross floor area of each proposed use, etc.) and the projected build out date;
- 2) ADT's, AM PHT's, and PM PHT's for each proposed use category and for the total proposed project, along with the source and methods from which the figures were derived;
- 3) A graphic depiction locating the project's access point(s) and the location of all other access points within 660' for project entrances on an arterial roadway, 330' for project entrances on a collector roadway, and 125' for project entrances on a local roadway;
- 4) The existing and project background traffic on all roadway facilities accessed by the proposed project at time of build out; and
- 5) The traffic/directional splits entering and exiting the proposed project at the proposed access points.

For requests projected to generate 100 trip ends or more, the ZTS shall provide the following additional information:

- 1) Level of Service' (LOS) analysis shall be performed using methodology as listed below:
 - a) If the project generates between 100 and 300 peak hour trips, a link, level of service analysis for all links within the area of influence shall be made based upon the Lee County Generalized Peak Hour Service Volume Tables from the 1990 Lee Plan as amended. (Exhibit IX-1, Pages IX-3 through IX-7, -Traffic Circulation Element, Volume 1 of 3)
 - The site accesses and all intersections within one quarter of a mile area shall be analyzed using the 1985 Highway Capacity Manual either as a signalized or unsignalized intersection.
 - b) If the project generates over 300 peak hour trips, an urban or suburban arterial analysis shall be made utilizing entrances and all other intersections and roadway links within the area of influence.
- 2) Should the LOS analysis result in service levels below adopted minimums, an analysis of the improvements necessary to offset the added traffic impacts; and

AC-13-17 Continued

- 3) An exhibit showing the area of influence, defined as that **area in** which the **development-generated** traffic is found to have significant impact. **Significant** impact is defined as **10%** or more of the total peak hour intersection volume (the summation of all four approaches) and 10% of the LOS "C" service volumes for the **links at** build out.
- 4) **Any additional information or analysis which the applicant feels is necessary to fully** demonstrate the impacts of the proposed development.
- 5) A methodology **meeting** with members of Staff is required for a ZTS projecting more than 300 trips and is strongly recommended for a ZTS projecting less than 300 trips, but that is the option of the applicant.

APPENDIX B

CUMULATIVE PERMITTED DEVELOPMENT TO-DATE

RIVER HALL CPD/RPD CUMULATIVE SUMMARY
TOTAL DEVELOPMENT TO DATE

Approved Development Allowed under Current Zoning				Development Program			
Reference #	Status	Name	Notes	Residential (d.u.)	Retail (Sq. Ft.)	Office (Sq. Ft.)	Golf (Holes)
Z-15-003	Approved	Z-15-003; River Hall CPD/RPD Rezoning	ZTIS reflected 2,043 SF units, 102 MF units, and 550 Senior Adult Housing Units	2,695	30,000	15,000	36

Approved/Pending Development Orders					Development Program								
Area	Reference #	Status	Name	Notes	Single-Family Detached (d.u.)	Single-Family Attached (d.u.)	Multiamy Residential (d.u.)	Senior Adult Housing - Detached (d.u.)	Total Residential (d.u.)	Retail (Sq. Ft.)	Office (Sq. Ft.)	Golf (Holes)	Amenities (Sq. Ft.)
1A	DOS2004-00138	APPROVED	ENTRY ROAD AND SALES CENTER		0	0	0	0	0	0	0	0	0
1B	DOS2004-00138	APPROVED	FUTURE DEVELOPMENT		0	0	0	0	0	0	0	0	0
2A	DOS2004-00248	APPROVED	CASCADES PHASE 1	LUC 251 Senior Adult Housing - Detached includes amenities by definition	0	0	0	167	167	0	0	0	0
2B	DOS2004-00266	APPROVED	CASCADES PHASE 2		0	0	0	408	408	0	0	0	0
2C	FUTURE	FUTURE	CASCADES PHASE 3		0	0	0	22	22	0	0	0	0
3	BY OTHERS	APPROVED	ELEMENTARY SCHOOL	School is not considered part of River Hall CPD/RPD.	0	0	0	0	0	0	0	0	0
4A	DOS2004-00305/DOS2017-00092	APPROVED	HAMPTON LAKES PHASE 1		402	0	0	0	402	0	0	0	15,217
4B	DOS2005-00156	APPROVED	HAMPTON LAKES PHASE 2		41	0	0	0	41	0	0	0	0
4C	DOS2019-00071	APPROVED	HAMPTON LAKES PHASE 3 (RIVER HALL SOUTH)	Amended to include southern crossing.	348	0	0	0	348	0	0	0	0
5A	DOS2004-00330	APPROVED	COUNTRY CLUB PHASE 1	LUC 430 Golf Course includes clubhouse/amenities by definition.	289	0	102	0	391	0	0	18	0
5B	DOS2005-00182	APPROVED	COUNTRY CLUB PHASE 2 (PARCEL S)	Amended.	417	92	36	0	545	0	0	0	0
5C	FUTURE	FUTURE	COUNTRY CLUB PHASE 3		0	0	0	0	0	0	0	0	0
5D	DOS2020-00036	APPROVED	PARCEL C	Currently approved for 19 units. Subject amendment proposes total of 22 units.	22	0	0	0	22	0	0	0	0
Cumulative Development To Date					1,714	92	138	597	2,346	0	0	18	15,217

APPENDIX C
TRAFFIC DATA

APPENDIX C.1

RIVER HALL CPD/RPD
PLANNED DEVELOPMENT AMENDMENT
TRAFFIC IMPACT STATEMENT

EXISTING TRAFFIC CONDITIONS
DIRECTIONAL PEAK HOUR

ROADWAY	FROM	TO	DIRPM Node		# of Lanes ⁽¹⁾	State/ County Roadway	Existing LOS Facility Type ⁽²⁾	LOS Std. ⁽³⁾	FDOT Station ⁽⁴⁾	Existing Traffic		Directional Service Volumes ⁽⁷⁾							Additional							
			Numbers A ₁	B ₁						Dir. Peak Hr. Vol. ⁽⁶⁾ NB/EB	Vol. ⁽⁶⁾ SB/WB	LOS A	LOS B	LOS C	LOS D	LOS E	LOS Std.	V/C	LOS	Lanes Needed	Lanes Needed					
Buckingham Rd.	SR 82	Gunnery Rd.	26697	26730	2	LC	LC_ClassIArterial_2L	E	124183		420	491		0	140	800	860	860	860	0.57	C		2	Add	0	L
	Gunnery Rd.	Orange River Blvd.	26412	26417	2	LC	LC_ClassIArterial_2L	E	126011		338	395		0	140	800	860	860	860	0.46	C		2	Add	0	L
	Orange River Blvd.		26567	26607	2	LC	LC_ClassIArterial_2L	E	124656		644	551		0	140	800	860	860	860	0.75	C		2	Add	0	L
Cemetery Rd.	Buckingham Rd.	Higgins Ave.	26417	26703	2	LC	LC_Collector_2LU	E	124656		308	263		0	0	310	660	740	740	0.42	C		2	Add	0	L
North River Rd.	SR 31	Franklin Lock Rd.	25796	26100	2	LC	LC_ClassIArterial_2L	E	124650		145	124		0	140	800	860	860	860	0.17	C		2	Add	0	L
	Franklin Lock Rd.	Broadway Rd.	27309	27426	2	LC	LC_ClassIArterial_2L	E	124650		145	124		0	140	800	860	860	860	0.17	C		2	Add	0	L
Olga Rd.	SR 80 W	SR 80 E	26607	26626	2	LC	LC_Collector_2LU	E	126011		82	70		0	0	310	660	740	740	0.11	C		2	Add	0	L
Orange River Blvd.	Staley Rd.	Buckingham Rd.	26263	26412	2	LC	LC_Collector_2LU	E	124202		408	477		0	0	310	660	740	740	0.64	D		2	Add	0	L
SR 31 (Babcock Ranch Rd.)	SR 80	SR 78	25807	25808	2	FDOT	C3C_2L_2W_U_WL_WR	D	120030		701	763		0	0	838	1,180	0	1,180	0.65	C		2	Add	0	L
	SR 78	Old Rodeo Dr.	25794	20133	2	FDOT	C3C_2L_2W_U_WL_WR	D	120030		602	655		0	0	838	1,180	0	1,180	0.56	C		2	Add	0	L
SR 80 (Palm Beach Blvd.)	CR 80B (Ortiz Ave.)	I-75	24345	24438	6	FDOT	C3R_6L_2W_D_WL_WR	D	125020		1,071	1242		0	0	2,889	3,010	0	3,010	0.41	C		4	Add	0	L
	I-75	SR 31 (Babcock Ranch Rd.)	25762	25808	6	FDOT	C3R_6L_2W_D_WL_WR	D	126005		1,486	1616		0	0	2,889	3,010	0	3,010	0.54	C		4	Add	0	L
	SR 31 (Babcock Ranch Rd.)	Buckingham Rd	26393	26607	4	FDOT	C3R_4L_2W_D_WL_WR	D	120085		1,878	2043		0	0	1,874	2,040	0	2,040	1.00	F		6	Add	2	L
	Buckingham Rd	River Hall Pkwy.	26783	89956	4	FDOT	C3R_4L_2W_D_WL_WR	D	120012		1426	1,311		0	0	1,874	2,040	0	2,040	0.70	C		4	Add	0	L
	River Hall Pkwy.	W. of Werner Drive	89956	26949	4	FDOT	C3R_4L_2W_D_WL_WR	D	120012		1426	1,311		0	0	1,874	2,040	0	2,040	0.70	C		4	Add	0	L
	W. of Werner Drive	Joel Boulevard	27174	26290	4	FDOT	C2T_4L_2W_D_WL_0R	C	120012		1179	1,084		0	0	1,257	1,808	0	1,257	0.94	C		4	Add	0	L
	Joel Boulevard	Hendry County Line	27861	28224	4	FDOT	C2T_4L_2W_D_WL_0R	C	120086		1053	968		0	0	1,257	1,808	0	1,257	0.84	C		4	Add	0	L

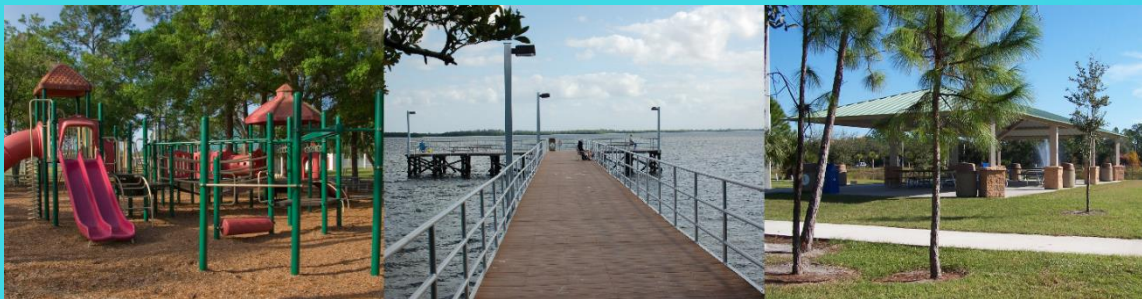
FOOTNOTES:

- (1) Existing number of lanes.
(2) LOS Facility Type for Service Volumes.
(3) LOS standard for Lee County roadways is LOS E. LOS standard used for FDOT roadways is LOS D for urbanized and LOS C for non-urbanized.
(4) FDOT count station from FDOT Traffic Online.
(5) Standard K factor, and existing D factor referenced from the FDOT Florida Traffic Online (2022). Peak direction based on PM peak hour direction from co-site synopsis report.
(6) For Lee County Roads: directional peak hour volumes sourced from2022 Public Facilities Level of Service and Concurrency Report For State Roads: directional peak hour volumes derived from traffic data sourced from FDOT 2022Florida Traffic Online.
(7) Lee County Generalized Service Volumes and FDOT 2023 Q/LOS Generalized Service Volumes with adjustments.



PUBLIC FACILITIES LEVEL OF SERVICE AND CONCURRENCY REPORT

2022 - INVENTORY AND PROJECTIONS



November, 2022

Infrastructure Planning Section
Department of Community Development

Table 21 b): Link-Level Service Volumes and LOS Table

Table 21 b) 1 of 7

LEE COUNTY ROAD LINK VOLUMES (County- and State-Maintained Roadways)														
Link No.	NAME	ROADWAY LINK		F. Class	ROAD TYPE	PERFORMANCE STANDARD		2021 100TH HIGHEST HOUR			FUTURE FORECAST (2026)			Notes
		FROM	TO			LOS	DIRECTIONAL CAPACITY	LOS	VOL	V/C	LOS	VOL	V/C	
00100	A & W BULB RD	GLADIOLUS DR	McGREGOR BLVD	Maj. Col	2LN	E	860	C	342	0.40	C	360	0.42	
00200	ALABAMA RD	SR 82	MILWAUKEE BLVD	M. Art	2LN	E	990	C	265	0.27	C	279	0.28	
00300	ALABAMA RD	MILWAUKEE BLVD	HOMESTEAD RD	M. Art	2LN	E	990	C	349	0.35	C	367	0.37	
00400	ALEXANDER BELL BLVD	SR 82	MILWAUKEE BLVD	M. Art	2LN	E	990	D	561	0.57	D	590	0.60	
00500	ALEXANDER BELL BLVD	MILWAUKEE BLVD	LEELAND HEIGHTS	M. Art	2LN	E	990	D	561	0.57	D	654	0.66	Shadow Lakes
00590	ALICO RD	US 41	DUSTY RD	P. Art	4LD	E	1,980	B	1,171	0.59	B	1,230	0.62	
00600	ALICO RD	DUSTY RD	LEE RD	P. Art	6LD	E	2,960	B	1,171	0.40	B	1,532	0.52	Alico Business Park
00700	ALICO RD	LEE RD	THREE OAKS PKWY	P. Art	6LD	E	2,960	B	1,171	0.40	B	1,419	0.48	Three Oaks Regional Center
00800	ALICO RD	THREE OAKS PKWY	I-75	P. Art	6LD	E	2,960	B	2,428	0.82	B	2,552	0.86	EEPCO Study
00900	ALICO RD	I-75	BEN HILL GRIFFIN BLVD	P. Art	6LD	E	2,960	B	1,278	0.43	B	1,425	0.48	EEPCO Study
01000	ALICO RD	BEN HILL GRIFFIN BLVD	GREEN MEADOW DR	Maj. Col	2LN	E	1,100	C	395	0.36	E	808	0.73	4 Ln constr 2018, EEPCO Study*
01050	ALICO RD	GREEN MEADOW DR	CORKSCREW RD	Maj. Col	2LN	E	1,100	B	131	0.12	B	224	0.20	EEPCO Study
01200	BABCOCK RD	US 41	ROCKEFELLER CIR	Min. Col	2LN	E	860	C	55	0.06	C	162	0.19	old count
01400	BARRETT RD	PONDELLA RD	PINE ISLAND RD (US 78)	Maj. Col	2LN	E	860	C	103	0.12	C	116	0.14	old count projection(2009)
01500	BASS RD	SUMMERLIN RD	GLADIOLUS DR	Maj. Col	4LN	E	1,790	C	564	0.32	C	822	0.46	
01600	BAYSHORE RD (SR 78)	BUS 41	NEW POST RD/HART RD	State	4LD	D	2,100	C	1,975	0.94	D	2,076	0.99	
01700	BAYSHORE RD (SR 78)	HART RD	SLATER RD	State	4LD	D	2,100	C	1,821	0.87	F	2,152	1.02	
01800	BAYSHORE RD (SR 78)	SLATER RD	I-75	State	4LD	D	2,100	C	1,222	0.58	C	1,441	0.69	
01900	BAYSHORE RD (SR 78)	I-75	NALLE RD	State	2LN	D	924	C	741	0.80	F	941	1.02	
02000	BAYSHORE RD (SR 78)	NALLE RD	SR 31	State	2LN	D	924	C	741	0.80	F	941	1.02	
02100	BEN HILL GRIFFIN PKWY	CORKSCREW RD	FGCU ENTRANCE	P. Art	4LD	E	2,000	B	1,361	0.68	B	1,763	0.88	
02200	BEN HILL GRIFFIN PKWY	FGCU BOULEVARD S	COLLEGE CLUB DR	P. Art	4LD	E	2,000	B	1,361	0.68	B	1,430	0.72	
02250	BEN HILL GRIFFIN PKWY	COLLEGE CLUB DR	ALICO RD	P. Art	6LD	E	3,000	A	1,123	0.37	A	1,215	0.41	
26950	BEN HILL GRIFFIN PKWY	ALICO RD	TERMINAL ACCESS RD	Controlled xs	4LD	E	1,980	A	980	0.49	A	1,030	0.52	
02300	BETH STACEY BLVD	23RD ST	HOMESTEAD RD	Maj. Col	2LN	E	860	C	340	0.40	C	565	0.66	
02400	BONITA BEACH RD	HICKORY BLVD	VANDERBILT DR	P. Art	4LD	E	1,900	C	736	0.39	C	774	0.41	Constrained In City Plan *
02500	BONITA BEACH RD	VANDERBILT DR	US 41	P. Art	4LD	E	1,900	C	1,433	0.75	C	1,506	0.79	Constrained In City Plan
02600	BONITA BEACH RD	US 41	OLD 41	P. Art	4LD	E	1,860	C	1,427	0.77	C	1,500	0.81	Constrained, old count projection(2010)
02700	BONITA BEACH RD	OLD 41	IMPERIAL ST	P. Art	6LD	E	2,800	C	1,908	0.68	C	2,005	0.72	Constrained In City Plan(2010)
02800	BONITA BEACH RD	IMPERIAL ST	W OF I-75	P. Art	6LD	E	2,800	C	2,091	0.75	C	2,197	0.78	Constrained In City Plan
02900	BONITA BEACH RD	E OF I-75	BONITA GRAND DR	M. Art	4LD	E	2,020	B	626	0.31	B	658	0.33	Constrained In City Plan
02950	BONITA BEACH RD	BONITA GRANDE DR	Logan Boulevard	M. Art	4LD	E	2,020	B	626	0.31	B	658	0.33	Constrained In City Plan
03100	BONITA GRANDE DR	BONITA BEACH RD	E TERRY ST	Maj. Col	2LN	E	860	D	692	0.80	E	782	0.91	old count projection(2009)
03200	BOYSCOUT RD	SUMMERLIN RD	US 41	P. Art	6LN	E	2,520	E	1,847	0.73	E	1,941	0.77	
03300	BRANTLEY RD	SUMMERLIN RD	US 41	Maj. Col	2LN	E	860	C	287	0.33	C	302	0.35	
03400	BRIARCLIFF RD	US 41	TRIPLE CROWN CT	Maj. Col	2LN	E	860	C	158	0.18	C	166	0.19	
03500	BROADWAY RD (ALVA)	SR 80	North RIVER RD	Maj. Col	2LN	E	860	C	280	0.33	C	294	0.34	old count projection(2009)
03700	BUCKINGHAM RD	SR 82	GUNNERY RD	P. Art	2LN	E	990	D	491	0.50	D	516	0.52	
03730	BUCKINGHAM RD	GUNNERY RD	ORANGE RIVER BLVD	P. Art	2LN	E	990	C	395	0.40	C	415	0.42	
03800	BUCKINGHAM RD	ORANGE RIVER BLVD	SR 80	P. Art	2LN	E	990	D	644	0.65	F	1,057	1.07	Buckingham 345 & Portico
03900	BURNT STORE RD	SR 78	VAN BUREN PKWY	Controlled xs	4LD	E	2,950	B	828	0.28	B	870	0.29	
04000	BURNT STORE RD	VAN BUREN PKWY	COUNTY LINE	Controlled xs	2LN	E	1,140	C	528	0.46	C	626	0.55	
04200	BUS 41 (N TAMIAMI TR, § CITY LIMITS (N END EDISON BRG))	PODELLA RD		State	6LD	D	3,171	C	1,715	0.54	C	2,082	0.66	
04300	BUS 41 (N TAMIAMI TR, § PONDELLA RD)	SR 78		State	6LD	D	3,171	C	1,715	0.54	C	2,082	0.66	
04400	BUS 41 (N TAMIAMI TR, § SR 78)	LITTLETON RD		State	4LD	D	2,100	C	994	0.47	C	1,245	0.59	
04500	BUS 41 (N TAMIAMI TR, § LITTLETON RD)	US 41		State	4LD	D	2,100	C	596	0.28	C	796	0.38	
04600	CAPE CORAL BRIDGE	DEL PRADO BLVD	McGREGOR BLVD	P. Art	4LB	E	4,000	D	3,097	0.77	D	3,255	0.81	
04700	CAPTIVA DR	BLIND PASS	SOUTH SEAS	Maj. Col	2LN	E	860	C	267	0.31	C	302	0.35	Constrained, old count(2010)

County-Maintained Collector Roadway - Unincorporated Lee County

County-Maintained Collector Roadway - Incorporated Lee County

County-Maintained Arterial Roadway - Unincorporated Lee County

County-Maintained Arterial Roadway - Incorporated Lee County

State-Maintained Arterial Roadway - Unincorporated Lee County

County Maintained Controlled Access Arterial Facility

County Maintained Expressway

Table 21 b): Link-Level Service Volumes and LOS Table

Table 21 b) 2 of 7

LEE COUNTY ROAD LINK VOLUMES (County- and State-Maintained Roadways)														
Link No.	NAME	ROADWAY LINK		F. Class	ROAD TYPE	PERFORMANCE STANDARD		2021 100TH HIGHEST HOUR			FUTURE FORECAST (2026)			Notes
		FROM	TO			LOS	DIRECTIONAL CAPACITY	LOS	VOL	V/C	LOS	VOL	V/C	
04800	CEMETERY RD	BUCKINGHAM RD	HIGGINS AVE	Maj. Col	2LN	E	860	C	308	0.36	C	323	0.38	Port Authority maintained Estero maintains to east
04900	CHAMBERLIN PKWY	AIRPORT ENT	DANIELS PKWY	Maj. Col	4LN	E	1,790	C	105	0.06	C	150	0.08	
05000	COCONUT RD	WEST END	VIA VENETTO BLVD	Maj. Col	2LN	E	860	C	268	0.31	C	420	0.49	
05100	COLLEGE PKWY	McGREGOR BLVD	WINKLER RD	P. Art	6LD	E	2,980	D	2,292	0.77	D	2,409	0.81	*
05200	COLLEGE PKWY	WINKLER RD	WHISKEY CREEK DR	P. Art	6LD	E	2,980	D	2,059	0.69	D	2,164	0.73	
05300	COLLEGE PKWY	WHISKEY CREEK DR	SUMMERLIN RD	P. Art	6LD	E	2,980	D	2,059	0.69	D	2,164	0.73	
05400	COLLEGE PKWY	SUMMERLIN RD	US 41	P. Art	6LD	E	2,980	D	1,898	0.64	D	1,995	0.67	
05500	COLONIAL BLVD	McGREGOR BLVD	SUMMERLIN RD	P. Art	6LD	E	2,840	F	3,049	1.07	F	3,204	1.13	*
05600	COLONIAL BLVD	SUMMERLIN RD	US 41	P. Art	6LD	E	2,840	D	2,650	0.93	D	2,785	0.98	
06200	COLONIAL BLVD	DYNASTY DR	SR 82	P. Art	6LD	D	3,040	B	2,070	0.68	C	2,175	0.72	*
06300	COLUMBUS BLVD	SR 82	MILWAUKEE BLVD	Maj. Col	2LN	E	860	C	100	0.12	C	105	0.12	old count
06400	CONSTITUTION BLVD	US 41	CONSTITUTION CIR	Maj. Col	2LN	E	860	C	217	0.25	C	245	0.28	old count projection(2010)
06500	CORBETT RD	SR 78 (PINE ISLAND RD)	LITTLETON RD	Maj. Col	2LN	E	860	C	22	0.03	C	226	0.26	old count, added VA clinic(2009)
06600	CORKSCREW RD	US 41	THREE OAKS PKWY	P. Art	4LD	E	1,900	C	1,047	0.55	C	1,312	0.69	Galleria at Corkscrew
06700	CORKSCREW RD	THREE OAKS PKWY	W OF I-75	P. Art	4LD	E	1,900	F	2,129	1.12	F	2,368	1.25	Estero Crossing
06800	CORKSCREW RD	E OF I-75	BEN HILL GRIFFIN BLVD	P. Art	4LD	E	1,900	C	1,069	0.56	C	1,281	0.67	
06900	CORKSCREW RD	BEN HILL GRIFFIN BLVD	ALICO RD	P. Art	4LD	E	1,960	C	1,186	0.61	C	1,398	0.71	
07000	CORKSCREW RD	ALICO RD	COUNTY LINE	P. Art	2LN	E	1,140	C	464	0.41	F	1,244	1.09	EEPCO Study, The Place
07100	COUNTRY LAKES BLVD	LUCKETT RD	TICE ST	Maj. Col	2LN	E	860	C	143	0.17	C	293	0.34	old count projection(2010)
07200	CRYSTAL DR	US 41	METRO PKWY	Maj. Col	2LN	E	860	C	360	0.42	C	379	0.44	
07300	CRYSTAL DR	METRO PKWY	PLANTATION RD	Maj. Col	2LN	E	860	C	242	0.28	C	254	0.30	
07400	CYPRESS LAKE DR	McGREGOR BLVD	SOUTH POINT BLVD	P. Art	4LD	E	1,940	D	1,129	0.58	D	1,186	0.61	
07500	CYPRESS LAKE DR	SOUTH POINT BLVD	WINKLER RD	P. Art	4LD	E	1,940	D	1,419	0.73	D	1,491	0.77	
07600	CYPRESS LAKE DR	WINKLER RD	SUMMERLIN RD	P. Art	4LD	E	1,940	D	1,419	0.73	D	1,491	0.77	
07700	CYPRESS LAKE DR	SUMMERLIN RD	US 41	P. Art	6LD	E	2,940	D	2,085	0.71	D	2,191	0.75	
07800	DANIELS PKWY	US 41	METRO PKWY	Controlled xs	6LD	E	2,680	D	2,288	0.85	D	2,405	0.90	
07900	DANIELS PKWY	METRO PKWY	SIX MILE PKWY	Controlled xs	6LD	E	2,680	D	2,109	0.79	E	2,520	0.94	Constrained
08000	DANIELS PKWY	SIX MILE PKWY	PALOMINO LN	Controlled xs	6LD	E	3,040	E	2,985	0.98	F	3,256	1.07	Constrained
08100	DANIELS PKWY	PALOMINO LN	I-75	Controlled xs	6LD	E	3,040	E	2,985	0.98	F	3,137	1.03	Constrained
08200	DANIELS PKWY	I-75	TREELINE AVE	Controlled xs	6LD	E	3,260	B	2,996	0.92	B	3,149	0.97	
08300	DANIELS PKWY	TREELINE AVE	CHAMBERLIN PKWY	Controlled xs	6LD	E	3,260	B	2,996	0.92	B	3,149	0.97	
08400	DANIELS PKWY	CHAMBERLIN PKWY	GATEWAY BLVD	Controlled xs	6LD	E	3,260	B	2,765	0.85	B	2,906	0.89	
08500	DANIELS PKWY	GATEWAY BLVD	SR 82	Controlled xs	4LD	E	2,160	F	2,163	1.00	F	2,307	1.07	SKY Walk *
08600	DANLEY DR	US 41	METRO PKWY	Maj. Col	2LN	E	860	C	255	0.30	C	286	0.33	
08700	DAVIS RD	McGREGOR BLVD	IONA RD	Maj. Col	2LN	E	860	C	15	0.02	C	29	0.03	old count projection(2010)
08800	DEL PRADO BLVD	CAPE CORAL PKWY	SE 46TH ST	P. Art	6LD	E	2,660	C	1,404	0.53	C	1,586	0.60	old count projection(2009)
08900	DEL PRADO BLVD	SE 46TH ST	CORONADO PKWY	P. Art	6LD	E	2,660	C	1,404	0.53	C	1,586	0.60	old count projection(2009)
09000	DEL PRADO BLVD	CORONADO PKWY	CORNWALLIS PKWY	P. Art	6LD	E	2,660	D	1,869	0.70	D	1,964	0.74	
09100	DEL PRADO BLVD	CORNWALLIS PKWY	CORAL POINT DR	P. Art	6LD	E	2,660	D	2,565	0.96	F	2,696	1.01	
09200	DEL PRADO BLVD	CORAL POINT DR	HANCOCK B. PKWY	P. Art	6LD	E	2,800	D	1,997	0.71	D	2,098	0.75	
09300	DEL PRADO BLVD	HANCOCK B. PKWY	SR 78	P. Art	6LD	E	2,800	C	1,642	0.59	C	1,725	0.62	*
09400	DEL PRADO BLVD	US 41	SLATER RD	M. Art	2LN	E	860	C	489	0.57	D	742	0.86	Crane Landing
09700	EAST 21ST ST	JOEL BLVD	GRANT AVE	Min. Col	2LN	E	860	C	31	0.04	C	33	0.04	*
09800	ESTERO BLVD	BIG CARLOS PASS BRIDGE	PESCADORA AVE	M. Art	2LN	E	726	A	356	0.49	A	374	0.52	Constrained*
09900	ESTERO BLVD	PESCADORA AVE	VOORHIS ST	M. Art	2LN	E	726	B	602	0.83	C	633	0.87	Constrained*
10000	ESTERO BLVD	VOORHIS ST	TROPICAL SHORES WAY	M. Art	2LN	E	726	B	602	0.83	C	633	0.87	Constrained*
10100	ESTERO BLVD	TROPICAL SHORES WAY	CENTER ST	M. Art	2LN	E	671	F	716	1.07	F	779	1.16	Constrained, old count(2010)
00007	ESTERO PKWY	US 41	THREE OAKS PKWY	P. Art	4LD	E	2,000	B	861	0.43	B	1,154	0.58	Not County Mntnd

County-Maintained Collector Roadway - Unincorporated Lee County

County-Maintained Collector Roadway - Incorporated Lee County

County-Maintained Arterial Roadway - Unincorporated Lee County

County-Maintained Arterial Roadway - Incorporated Lee County

State-Maintained Arterial Roadway - Unincorporated Lee County

County Maintained Controlled Access Arterial Facility

County Maintained Expressway

Table 21 b): Link-Level Service Volumes and LOS Table

Table 21 b) 3 of 7

LEE COUNTY ROAD LINK VOLUMES (County- and State-Maintained Roadways)														
Link No.	NAME	ROADWAY LINK		F. Class	ROAD TYPE	PERFORMANCE STANDARD		2021 100TH HIGHEST HOUR			FUTURE FORECAST (2026)			Notes
		FROM	TO			LOS	DIRECTIONAL CAPACITY	LOS	VOL	V/C	LOS	VOL	V/C	
14450	ESTERO PKWY	THREE OAKS PKWY	BEN HILL GRIFFIN PKWY	M. Art	4LD	E	2,000	B	629	0.31	B	661	0.33	*
10200	EVERGREEN RD	US 41	BUS 41	Maj. Col	2LN	E	860	C	100	0.12	C	116	0.13	old count projection
10300	FIDDLESTICKS BLVD	GUARDHOUSE	DANIELS PKWY	Maj. Col	2LN	E	860	C	340	0.40	C	358	0.42	
10400	FOWLER ST	US 41	N AIRPORT RD	P. Art	6LD	E	2,300	D	1,308	0.57	D	1,375	0.60	
10500	FOWLER ST	N AIRPORT RD	COLONIAL BLVD	P. Art	6LD	E	2,300	D	1,565	0.68	D	1,644	0.71	
10800	GASPARILLA BLVD	FIFTH ST	COUNTY LINE	Maj. Col	2LN	E	860	C	231	0.27	C	258	0.30	Constrained*
	GATEWAY BLVD	GATEWAY LAKES BLVD	SR82	M. Art	2LN	E	860	C	505	0.59	C	531	0.62	Old Count
	GATEWAY BLVD	DANIELS PKWY	GATEWAY LAKES BLVD	M. Art	4LD	E	1,790	C	1,233	0.69	C	1,296	0.72	
10900	GLADIOLUS DR	MCGREGOR BLVD	PINE RIDGE RD	P. Art	4LD	E	1,840	C	528	0.29	C	555	0.30	
11000	GLADIOLUS DR	PINE RIDGE RD	BASS RD	P. Art	4LD	E	1,840	C	1,149	0.62	C	1,284	0.70	
11100	GLADIOLUS DR	BASS RD	WINKLER RD	P. Art	6LD	E	2,780	C	1,149	0.41	C	1,208	0.43	
11200	GLADIOLUS DR	WINKLER RD	SUMMERLIN RD	P. Art	6LD	E	2,780	B	1,149	0.41	B	1,208	0.43	
11300	GLADIOLUS DR	SUMMERLIN RD	US 41	P. Art	6LD	E	2,780	C	2,227	0.80	C	2,340	0.84	
11400	GREENBRIAR BLVD	RICHMOND AVE	JOEL BLVD	Min. Col	2LN	E	860	C	72	0.08	C	76	0.09	*
11500	GUNNERY RD	SR 82	LEE BLVD	P. Art	4LD	E	1,920	B	1,427	0.74	B	1,522	0.79	
11600	GUNNERY RD	LEE BLVD	BUCKINGHAM RD	P. Art	2LN	E	1,020	C	777	0.76	C	912	0.89	
11700	HANCOCK BRIDGE PKWY	DEL PRADO BLVD	NE 24TH AVE	P. Art	4LD	E	1,880	B	1,082	0.58	B	1,138	0.61	
11800	HANCOCK BRIDGE PKWY	NE 24TH AVE	ORANGE GROVE BLVD	P. Art	4LD	E	1,880	B	1,362	0.72	B	1,432	0.76	
11900	HANCOCK BRIDGE PKWY	ORANGE GROVE BLVD	MOODY RD	P. Art	4LD	E	1,880	B	1,356	0.72	B	1,425	0.76	
12000	HANCOCK BRIDGE PKWY	MOODY RD	US 41	P. Art	4LD	E	1,880	B	1,356	0.72	B	1,425	0.76	
12100	HART RD	SR 78	TUCKER LANE	Min. Col	2LN	E	860	C	337	0.39	C	354	0.41	*
12200	HICKORY BLVD	BONITA BEACH RD	McLAUGHLIN BLVD	M. Art	2LN	E	890	E	554	0.62	E	582	0.65	Constrained*
12300	HICKORY BLVD	McLAUGHLIN BLVD	MELODY LANE	M. Art	2LN	E	890	E	554	0.62	E	582	0.65	Constrained*
12400	HICKORY BLVD	MELODY LANE	ESTERO BLVD	M. Art	2LN	E	890	E	554	0.62	E	582	0.65	Constrained*
12480	HOMESTEAD RD	SR 82	MILWAUKEE BLVD	M. Art	2LN	E	1,010	D	517	0.51	E	687	0.68	*
12490	HOMESTEAD RD	MILWAUKEE BLVD	SUNRISE BLVD	M. Art	2LN	E	1,010	D	517	0.51	E	687	0.68	*
12500	HOMESTEAD RD	SUNRISE BLVD	LEELAND HEIGHTS	M. Art	4LN	E	1,960	C	517	0.26	C	687	0.35	4 lane under construction
12600	HOMESTEAD RD	LEELAND HEIGHTS	LEE BLVD	M. Art	4LN	E	1,960	D	1,249	0.64	D	1,345	0.69	
31800	I-75	BONITA BEACH RD	CORKSCREW RD	State	6LF	D	5,620	D	5,608	1.00	F	6,508	1.16	State Performance Standard is D
31900	I-75	CORKSCREW RD	ALICO RD	State	6LF	D	5,620	E	5,816	1.03	F	6,656	1.18	
32000	I-75	ALICO RD	DANIELS PKWY	State	6LF	D	6,620	E	6,038	0.91	E	6,636	1.00	
32100	I-75	DANIELS PKWY	COLONIAL BLVD	State	6LF	D	5,620	D	5,063	0.90	E	5,849	1.04	
32300	I-75	M.L.K.(SR 82)	LUCKETT RD	State	6LF	D	5,620	D	5,297	0.94	E	5,947	1.06	
32400	I-75	LUCKETT RD	SR 80	State	6LF	D	6,620	C	5,063	0.76	C	5,627	0.85	
32500	I-75	SR 80	SR 78	State	6LF	D	6,620	B	3,557	0.54	B	3,993	0.60	
32600	I-75	SR 78	COUNTY LINE	State	6LF	C	4,670	B	3,241	0.69	C	3,572	0.76	
	I-75	COLONIAL BLVD	M.L.K.(SR 82)	State	6LF	D	5,620	C	4,788	0.85	D	4,936	0.88	
12700	IDLEWILD ST	METRO PKWY	RANCHETTE RD	Maj. Col	2LN	E	860	C	201	0.23	C	212	0.25	
13000	IMMOKALEE RD (SR 82)	E OF COLONIAL BLVD	GATEWAY BLVD	State	6LD	D	3,171	C	1,892	0.60	C	2,444	0.77	
13100	IMMOKALEE RD (SR 82)	GATEWAY BLVD	GUNNERY RD	State	6LD	D	3,171	C	1,362	0.43	C	1,779	0.56	
13200	IMMOKALEE RD (SR 82)	GUNNERY RD	ALABAMA RD	State	6LD	D	4,920	B	1,326	0.27	B	1,619	0.33	
13300	IMMOKALEE RD (SR 82)	ALABAMA RD	BELL BLVD	State	4LD	D	3,280	B	750	0.23	B	926	0.28	
13400	IMMOKALEE RD (SR 82)	BELL BLVD	COUNTY LINE	State	4LD	D	3,280	B	707	0.22	B	871	0.27	
13500	IMPERIAL PKWY	COLLIER COUNTY LINE	BONITA BEACH RD	P. Art	4LD	E	1,920	B	1,080	0.56	B	1,135	0.59	
13550	IMPERIAL PKWY	E TERRY ST	COCONUT RD	Controlled xs	4LD	E	1,920	B	730	0.38	B	767	0.40	
13600	IONA RD	DAVIS RD	MCGREGOR BLVD	Maj. Col	2LN	E	860	C	384	0.45	C	463	0.54	*
13700	ISLAND PARK RD	PARK RD	US 41	Maj. Col	2LN	E	860	C	79	0.09	C	210	0.24	
13800	JOEL BLVD	ALEX GRAHAM BELL BLVD	18TH ST	P. Art	4LN	E	2,120	B	614	0.29	B	824	0.39	Joel Blvd CPD

County-Maintained Collector Roadway - Unincorporated Lee County

State-Maintained Arterial Roadway - Unincorporated Lee County

County-Maintained Collector Roadway - Incorporated Lee County

County Maintained Controlled Access Arterial Facility

County-Maintained Arterial Roadway - Unincorporated Lee County

County Maintained Expressway

County-Maintained Arterial Roadway - Incorporated Lee County

Table 21 b): Link-Level Service Volumes and LOS Table

Table 21 b) 4 of 7

LEE COUNTY ROAD LINK VOLUMES (County- and State-Maintained Roadways)														
Link No.	NAME	ROADWAY LINK		F. Class	ROAD TYPE	PERFORMANCE STANDARD		2021 100TH HIGHEST HOUR			FUTURE FORECAST (2026)			Notes
		FROM	TO			LOS	DIRECTIONAL CAPACITY	LOS	VOL	V/C	LOS	VOL	V/C	
13900	JOEL BLVD	18TH ST	SR 80	P. Art	2LN	E	1,010	C	482	0.48	D	506	0.50	
14000	JOHN MORRIS RD	BUNCHE BEACH	SUMMERLIN RD	Min. Col	2LN	E	860	C	62	0.07	C	72	0.08	old count projection
14100	JOHN MORRIS RD	SUMMERLIN RD	IONA RD	Maj. Col	2LN	E	860	C	256	0.30	C	269	0.31	*
14200	KELLY RD	McGREGOR BLVD	SAN CARLOS BLVD	Maj. Col	2LN	E	860	C	264	0.31	C	277	0.32	
14300	KELLY RD	SAN CARLOS BLVD	PINE RIDGE RD	Maj. Col	2LN	E	860	C	106	0.12	C	120	0.14	old count projection(2010)
14500	LAUREL DR	BUS 41	BREEZE DR	Maj. Col	2LN	E	860	C	384	0.45	C	404	0.47	
14600	LEE BLVD	SR 82	ALVIN AVE	P. Art	6LD	E	2,840	B	2,084	0.73	B	2,190	0.77	
14700	LEE BLVD	ALVIN AVE	GUNNERY RD	P. Art	6LD	E	2,840	B	1,957	0.69	B	2,136	0.75	
14800	LEE BLVD	GUNNERY RD	HOMESTEAD RD	P. Art	6LD	E	2,840	B	2,093	0.74	B	2,200	0.77	
14900	LEE BLVD	HOMESTEAD RD	WILLIAMS AVE	P. Art	4LD	E	1,980	B	898	0.45	B	943	0.48	
14930	LEE BLVD	WILLIAMS AVE	LEELAND HEIGHTS	P. Art	2LN	E	1,020	C	898	0.88	C	943	0.92	
15000	LEE RD	SAN CARLOS BLVD	ALICO RD	Maj. Col	2LN	E	860	C	544	0.63	D	614	0.71	old count projection(2015)
15100	LEELAND HEIGHTS	HOMESTEAD RD	JOEL BLVD	P. Art	4LN	E	1,800	B	832	0.46	B	867	0.48	*
15200	LEONARD BLVD	GUNNERY RD	WESTGATE BLVD	M. Art	2LN	E	860	D	763	0.89	D	819	0.95	
15300	LITTLETON RD	CORBETT RD	US 41	Maj. Col	2LN	E	860	C	528	0.61	C	555	0.65	
15400	LITTLETON RD	US 41	BUS 41	Maj. Col	2LN	E	860	C	437	0.51	C	459	0.53	
15500	LUCKETT RD	ORTIZ AVE	I-75	M. Art	2LN	E	880	B	317	0.36	B	392	0.45	4 Ln design & ROW
15600	LUCKETT RD	I-75	COUNTRY LAKES DR	Maj. Col	2LN	E	860	B	285	0.33	C	299	0.35	
15700	MAPLE DR*	SUMMERLIN RD	2ND AVE	Min. Col	2LN	E	860	C	77	0.09	C	89	0.10	old count projection
15800	McGREGOR BLVD	SANIBEL T PLAZA	HARBOR DR	P. Art	4LD	E	1,960	B	1,173	0.60	B	1,233	0.63	
15900	McGREGOR BLVD	HARBOR DR	SUMMERLIN RD	P. Art	4LD	E	1,960	B	1,180	0.60	B	1,240	0.63	
16000	McGREGOR BLVD	SUMMERLIN RD	KELLY RD	M. Art	4LD	E	1,960	A	927	0.47	A	983	0.50	
16100	McGREGOR BLVD	KELLY RD	GLADIOLUS DR	M. Art	4LD	E	1,960	A	927	0.47	A	975	0.50	
16200	McGREGOR BLVD (SR 86) OLD McGREGOR /GLADIOLUS DR		IONA LOOP RD	State	4LD	D	2,100	C	1,465	0.70	C	1,635	0.78	
16300	McGREGOR BLVD (SR 86) IONA LOOP RD		PINE RIDGE RD	State	4LD	D	2,100	C	1,465	0.70	C	1,635	0.78	
16400	McGREGOR BLVD (SR 86) PINE RIDGE RD		CYPRESS LAKE DR	State	4LD	D	2,100	C	1,674	0.80	C	1,873	0.89	
16500	McGREGOR BLVD (SR 86) CYPRESS LAKE DR		COLLEGE PKWY	State	4LD	D	2,100	C	1,674	0.80	C	1,873	0.89	
16600	McGREGOR BLVD (SR 86) COLLEGE PKWY		WINKLER RD	State	2LN	D	924	C	726	0.79	C	797	0.86	Constrained
16700	McGREGOR BLVD (SR 86) WINKLER RD		TANGLEWOOD BLVD	State	2LN	D	970	F	1,039	1.07	F	1,143	1.18	Constrained
16800	McGREGOR BLVD (SR 86) TANGLEWOOD BLVD		COLONIAL BLVD	State	2LN	D	970	F	1,039	1.07	F	1,143	1.18	Constrained
16900	METRO PKWY (SR 739)	SIX MILE PKWY	DANIELS PKWY	State	6LD	D	3,171	C	1,136	0.36	C	1,492	0.47	
17000	METRO PKWY (SR 739)	DANIELS PKWY	CRYSTAL DR	State	4LD	D	2,100	C	1,184	0.56	C	1,446	0.69	
17100	METRO PKWY (SR 739)	CRYSTAL DR	DANLEY DR	State	4LD	D	2,100	C	1,665	0.79	D	2,092	1.00	
17200	METRO PKWY (SR 739)	DANLEY DR	COLONIAL BLVD	State	4LD	D	2,100	C	1,665	0.79	D	2,092	1.00	
	MICHAEL RIPPE PKWY	US41	SIX MILES PKWY	State	6LD	D	3,171	C	1,397	0.44	C	1,875	0.59	
17600	MILWAUKEE BLVD	ALABAMA BLVD	BELL BLVD	Maj. Col	2LN	E	860	C	168	0.20	C	176	0.20	*
17700	MILWAUKEE BLVD	BELL BLVD	COLUMBUS BLVD	Min. Col	2LN	E	860	C	168	0.20	C	181	0.21	*
17800	MOODY RD	HANCOCK B. PKWY	PONDELLA RD	Min. Col	2LN	E	860	C	182	0.21	C	206	0.24	old count projection(2009)
17900	NALLE GRADE RD	SLATER RD	NALLE RD	Min. Col	2LN	E	860	C	69	0.08	C	72	0.08	
18000	NALLE RD	SR 78	NALLE GRADE RD	Min. Col	2LN	E	860	C	128	0.15	C	147	0.17	*
18100	NEAL RD	ORANGE RIVER BLVD	BUCKINGHAM RD	Min. Col	2LN	E	860	C	130	0.15	C	137	0.16	*
18200	NORTH RIVER RD	SR 31	FRANKLIN LOCK RD	M. Art	2LN	E	1,140	A	145	0.13	B	264	0.23	
18300	NORTH RIVER RD	FRANKLIN LOCK RD	BROADWAY RD	M. Art	2LN	E	1,140	A	145	0.13	B	286	0.25	
18400	NORTH RIVER RD	BROADWAY RD	COUNTY LINE	M. Art	2LN	E	1,140	A	100	0.09	A	133	0.12	
18900	OLGA RD*	SR 80 W	SR 80 E	Min. Col	2LN	E	860	C	82	0.10	C	95	0.11	old count projection
19100	ORANGE GROVE BLVD	CLUB ENTR.	HANCOCK B. PKWY	Min. Col	2LN	E	860	C	393	0.46	C	488	0.57	old count(2009)
19200	ORANGE GROVE BLVD	HANCOCK B. PKWY	PONDELLA RD	Min. Col	4LN	E	1,790	C	528	0.29	C	555	0.31	
19300	ORANGE RIVER BLVD	SR 80	STALEY RD	Maj. Col	2LN	E	1,000	D	477	0.48	D	502	0.50	

County-Maintained Collector Roadway - Unincorporated Lee County

County-Maintained Collector Roadway - Incorporated Lee County

County-Maintained Arterial Roadway - Unincorporated Lee County

County-Maintained Arterial Roadway / Incorporated Lee County

State-Maintained Arterial Roadway - Unincorporated Lee County

County Maintained Controlled Access Arterial Facility

County Maintained Expressway

Table 21 b): Link-Level Service Volumes and LOS Table

Table 21 b) 5 of 7

LEE COUNTY ROAD LINK VOLUMES (County- and State-Maintained Roadways)														
Link No.	NAME	ROADWAY LINK		F. Class	ROAD TYPE	PERFORMANCE STANDARD		2021 100TH HIGHEST HOUR			FUTURE FORECAST (2026)			Notes
		FROM	TO			LOS	DIRECTIONAL CAPACITY	LOS	VOL	V/C	LOS	VOL	V/C	
19400	ORANGE RIVER BLVD	STALEY RD	BUCKINGHAM RD	Maj. Col	2LN	E	1,000	D	477	0.48	D	511	0.51	
19500	ORIOLE RD	SAN CARLOS BLVD	ALICO RD	Maj. Col	2LN	E	860	C	129	0.15	C	136	0.16	
19600	ORTIZ AVE	COLONIAL BLVD	SR 82	Controlled xs	2LN	E	900	B	716	0.80	B	753	0.84	
19700	ORTIZ AVE	SR 82	LUCKETT RD	P. Art	2LN	E	900	B	745	0.83	B	784	0.87	4 Ln design & ROW
19800	ORTIZ AVE	LUCKETT RD	SR 80	P. Art	2LN	E	900	B	309	0.34	B	325	0.36	4 Ln design & ROW
19900	PALM BEACH BLVD (SR 8) PROSPECT AVE		ORTIZ AVE	State	4LD	D	2,100	C	1,089	0.52	C	1,240	0.59	
20000	PALM BEACH BLVD (SR 8) ORTIZ AVE		I-75	State	6LD	D	3,171	C	1,242	0.39	C	1,391	0.44	
20100	PALM BEACH BLVD (SR 8) I-75		SR 31	State	6LD	D	3,171	C	1,616	0.51	C	2,001	0.63	
20200	PALM BEACH BLVD (SR 8) SR 31		BUCKINGHAM RD	State	4LD	D	2,100	D	2,043	0.97	F	2,495	1.19	
20300	PALM BEACH BLVD (SR 8) BUCKINGHAM RD		WERNER DR	State	4LD	D	3,280	B	1,426	0.43	C	1,802	0.55	
20330	PALM BEACH BLVD (SR 8) WERNER DR		JOEL BLVD	State	4LD	C	2,210	B	1,179	0.53	C	1,531	0.69	
20400	PALM BEACH BLVD (SR 8) JOEL BLVD		HENDRY CO. LINE	State	4LD	C	2,210	B	1,053	0.48	B	1,343	0.61	
20500	PALOMINO LN	DANIELS PKWY	PENZANCE BLVD	Min. Col	2LN	E	860	C	380	0.44	C	403	0.47	
20600	PARK MEADOWS DR	SUMMERLIN RD	US 41	Maj. Col	2LN	E	860	C	205	0.24	C	216	0.25	
20800	PENZANCE BLVD	RANCHETTE RD	SIX MILE PKWY	Maj. Col	2LN	E	860	C	148	0.17	C	160	0.19	
20900	PINE ISLAND RD	STRINGFELLOW RD	BURNT STORE RD	P. Art	2LN	E	950	E	594	0.63	E	644	0.68	Constrained
21400	PINE ISLAND RD (SR 78)	CITY LIMITS E OF BARRETT RD	US 41	State	4LD	D	2,100	C	1,821	0.87	F	2,171	1.03	
21500	PINE ISLAND RD (SR 78)	US 41	BUS 41	State	4LD	D	2,100	C	1,590	0.76	C	1,754	0.84	
21600	PINE RIDGE RD	SAN CARLOS BLVD	SUMMERLIN RD	Maj. Col	2LN	E	860	C	515	0.60	D	587	0.68	*
21700	PINE RIDGE RD	SUMMERLIN RD	GLADIOLUS DR	Maj. Col	2LN	E	860	C	245	0.28	C	405	0.47	Heritage Isle*
21800	PINE RIDGE RD	GLADIOLUS DR	MCGREGOR BLVD	Maj. Col	2LN	E	860	C	245	0.28	C	257	0.30	
21900	PLANTATION RD	SIX MILE PKWY	DANIELS PKWY	M. Art	2LN	E	860	C	267	0.31	C	369	0.43	Intermed Park
22000	PLANTATION RD	DANIELS PKWY	IDLEWILD ST	M. Art	2LN	E	860	D	692	0.80	D	728	0.85	FDOT Metro Pkwy 6-laning
22050	PLANTATION RD	IDLEWILD ST	COLONIAL BLVD	M. Art	4LN	E	1,790	C	687	0.38	C	722	0.40	
22100	PONDELLA RD	SR 78	ORANGE GROVE BLVD	P. Art	4LD	E	1,890	B	1,012	0.54	B	1,063	0.56	*
22200	PONDELLA RD	ORANGE GROVE BLVD	US 41	P. Art	4LD	E	1,890	B	1,405	0.74	B	1,480	0.78	
22300	PONDELLA RD	US 41	BUS 41	P. Art	4LD	E	1,890	B	1,052	0.56	B	1,105	0.58	
22400	PRITCHETT PKWY	SR 78	RICH RD	Maj. Col	2LN	E	860	C	73	0.08	C	541	0.63	old count, Stoneybrook North(2009)
22500	RANCHETTE RD	PENZANCE BLVD	IDLEWILD ST	Maj. Col	2LN	E	860	C	93	0.11	C	98	0.11	
22600	RICH RD	SLATER RD	PRITCHETT PKWY	Maj. Col	2LN	E	860	C	55	0.06	C	62	0.07	old count projection(2009)
22700	RICHMOND AVE	LEELAND HEIGHTS	E 12TH ST	Maj. Col	2LN	E	860	C	82	0.10	C	94	0.11	
22800	RICHMOND AVE	E 12TH ST	GREENBRIAR BLVD	Maj. Col	2LN	E	860	C	82	0.10	C	86	0.10	
23230	SAN CARLOS BLVD	US 41	THREE OAKS PKWY	Maj. Col	2LN	E	860	C	401	0.47	C	422	0.49	*
23000	SAN CARLOS BLVD (SR 86) MANTANZAS PASS B.		MAIN ST	State	2LD	D	970	F	1,051	1.08	F	1,176	1.21	Constrained
23100	SAN CARLOS BLVD (SR 86) MAIN ST		SUMMERLIN RD	State	4LD	D	2,100	C	1,051	0.50	C	1,176	0.56	PD&E Study
23180	SAN CARLOS BLVD (SR 86) SUMMERLIN RD		KELLY RD	State	2LD	D	970	C	772	0.80	C	795	0.82	
23200	SAN CARLOS BLVD (SR 86) KELLY RD		GLADIOLUS DR	State	4LD	D	2,100	C	772	0.37	C	795	0.38	
23260	SANIBEL BLVD	US 41	LEE RD	Maj. Col	2LN	E	860	C	489	0.57	C	514	0.60	
23300	SANIBEL CAUSEWAY	SANIBEL SHORELINE	TOLL PLAZA	P. Art	2LN	E	1,140	E	987	0.87	E	1,037	0.91	
23400	SHELL POINT BLVD	MCGREGOR BLVD	PALM ACRES	Maj. Col	2LN	E	860	C	231	0.27	C	243	0.28	*
23600	SIX MILE CYPRESS	METRO PKWY	DANIELS PKWY	Controlled xs	4LD	E	2,000	B	1,371	0.69	B	1,441	0.72	Unincorporated LC
23700	SIX MILE CYPRESS	DANIELS PKWY	WINKLER EXT.	Controlled xs	4LD	E	1,900	B	951	0.50	B	1,154	0.61	Unincorporated LC
23800	SIX MILE CYPRESS	WINKLER EXT.	CHALLENGER BLVD	Controlled xs	4LD	E	1,900	B	1,061	0.56	B	1,115	0.59	Incorporated LC
23900	SIX MILE CYPRESS	CHALLENGER BLVD	COLONIAL BLVD	Controlled xs	6LD	E	2,860	A	1,061	0.37	A	1,115	0.39	Incorporated LC
23500	SIX MILE PKWY (SR 739)	US 41	METRO PKWY	State	4LD	D	2,100	C	1,941	0.92	F	2,243	1.07	
24000	SLATER RD	SR 78	NALLE GRADE RD	M. Art	2LN	E	1,010	C	376	0.37	C	395	0.39	*
24100	SOUTH POINTE BLVD	CYPRESS LAKE DR	COLLEGE PKWY	Maj. Col	2LD	E	910	D	602	0.66	D	633	0.70	*
24200	SR 31 (ARCADIA RD)	SR 80	SR 78	State	2LN	D	970	C	763	0.79	F	989	1.02	PD&E/SEIR Study

 County-Maintained Collector Roadway - Unincorporated Lee County

 County-Maintained Collector Roadway - Incorporated Lee County

 County-Maintained Arterial Roadway - Unincorporated Lee County

 County-Maintained Arterial Roadway - Incorporated Lee County

 State-Maintained Arterial Roadway - Unincorporated Lee County

 County Maintained Controlled Access Arterial Facility

 County Maintained Expressway

Table 21 b): Link-Level Service Volumes and LOS Table

Table 21 b) 6 of 7

LEE COUNTY ROAD LINK VOLUMES (County- and State-Maintained Roadways)														
Link No.	NAME	ROADWAY LINK		F. Class	ROAD TYPE	PERFORMANCE STANDARD		2021 100TH HIGHEST HOUR			FUTURE FORECAST (2026)			Notes
		FROM	TO			LOS	DIRECTIONAL CAPACITY	LOS	VOL	V/C	LOS	VOL	V/C	
24300	SR 31 (ARCADIA RD)	SR 78	COUNTY LINE	State	2LN	C	820	C	655	0.80	B	889	0.40	Future Capacity 2210 (for V/C as well)
24400	STALEY RD	TICE	ORANGE RIVER BLVD	Maj. Col	2LN	E	860	C	197	0.23	C	207	0.24	*
24500	STRINGFELLOW RD	1ST AVE	BERKSHIRE RD	M. Art	2LN	E	1,060	B	315	0.30	C	445	0.42	Constrained
24600	STRINGFELLOW RD	BERKSHIRE RD	PINE ISLAND RD	M. Art	2LN	E	1,060	B	315	0.30	C	448	0.42	Constrained
24700	STRINGFELLOW RD	PINE ISLAND RD	PINELAND RD	M. Art	2LN	E	1,060	D	730	0.69	E	831	0.78	Constrained
24800	STRINGFELLOW RD	PINELAND RD	MAIN ST	M. Art	2LN	E	1,060	D	730	0.69	E	827	0.78	
24900	SUMMERLIN RD	MCGREGOR BLVD	KELLY COVE RD	Controlled xs	4LD	E	1,980	A	1,243	0.63	A	1,306	0.66	Unincorporated Lee county
25000	SUMMERLIN RD	KELLY COVE RD	SAN CARLOS BLVD	Controlled xs	4LD	E	1,980	A	1,243	0.63	A	1,306	0.66	Unincorporated Lee county
25100	SUMMERLIN RD	SAN CARLOS BLVD	PINE RIDGE RD	Controlled xs	6LD	E	3,000	A	1,928	0.64	A	2,158	0.72	Unincorporated Lee county
25200	SUMMERLIN RD	PINE RIDGE RD	BASS RD	Controlled xs	6LD	E	3,000	A	1,928	0.64	A	2,026	0.68	Unincorporated Lee county
25300	SUMMERLIN RD	BASS RD	GLADIOLUS DR	Controlled xs	6LD	E	3,000	A	1,928	0.64	A	2,026	0.68	Unincorporated Lee county
25400	SUMMERLIN RD	GLADIOLUS DR	CYPRESS LAKE DR	Controlled xs	4LD	E	1,900	C	1,530	0.81	C	1,631	0.86	Unincorporated Lee county
25500	SUMMERLIN RD	CYPRESS LAKE DR	COLLEGE PKWY	Controlled xs	6LD	E	2,880	B	1,808	0.63	B	1,900	0.66	Unincorporated Lee county
25600	SUMMERLIN RD	COLLEGE PKWY	PARK MEADOW DR	Controlled xs	6LD	E	2,880	B	1,802	0.63	B	1,894	0.66	Unincorporated Lee county
25700	SUMMERLIN RD	PARK MEADOW DR	BOY SCOUT	Controlled xs	6LD	E	2,880	B	1,802	0.63	B	1,894	0.66	Unincorporated Lee county
25800	SUMMERLIN RD	BOY SCOUT	MATHEWS DR	P. Art	4LD	E	1,820	D	1,135	0.62	D	1,193	0.66	
25900	SUMMERLIN RD	MATHEWS DR	COLONIAL BLVD	P. Art	4LD	E	1,820	D	1,135	0.62	D	1,193	0.66	
26000	SUNRISE BLVD	BELL BLVD	COLUMBUS BLVD	Min. Col	2LN	E	860	C	42	0.05	C	53	0.06	Old Count
26100	SUNSHINE BLVD	SR 82	23RD ST SW	P. Art	2LN	E	1,010	C	395	0.39	C	416	0.41	*
26150	SUNSHINE BLVD	23RD ST SW	LEE BLVD	P. Art	2LN	E	1,010	C	395	0.39	C	416	0.41	*
26200	SUNSHINE BLVD	LEE BLVD	W 12TH ST	P. Art	2LN	E	1,010	D	651	0.64	D	684	0.68	*
26300	SUNSHINE BLVD	W 12TH ST	W 75TH ST	Maj. Col	2LN	E	860	D	602	0.70	D	633	0.74	
26500	THREE OAKS PKWY	COCONUT RD	ESTERO PKWY	P. Art	4LD	E	1,940	B	1,560	0.80	B	1,743	0.90	
26600	THREE OAKS PKWY	ESTERO PKWY	SAN CARLOS BLVD	P. Art	4LD	E	1,940	B	707	0.36	B	816	0.42	
26700	THREE OAKS PKWY	SAN CARLOS BLVD	ALICO RD	P. Art	4LD	E	1,940	B	707	0.36	B	743	0.38	
26800	TICE ST	SR 80	ORTIZ AVE	Maj. Col	2LN	E	860	C	199	0.23	C	209	0.24	
26900	TICE ST	ORTIZ AVE	STALEY RD	Maj. Col	2LN	E	860	C	207	0.24	C	243	0.28	Elementry U.
27000	TREELINE AVE	TERMINAL ACCESS RD	DANIELS PKWY	Controlled xs	4LD	E	1,980	A	1,050	0.53	A	1,288	0.65	Harley Davidson
27030	TREELINE AVE	DANIELS PKWY	AMBERWOOD RD	P. Art	4LD	E	1,980	A	782	0.39	A	822	0.42	
27070	TREELINE AVE	AMBERWOOD RD	COLONIAL BLVD	P. Art	4LD	E	1,980	A	782	0.39	A	822	0.42	
30500	US 41 (CLEVELAND AVE)	DANIELS PKWY	COLLEGE PKWY	State	6LD	D	3,171	C	2,598	0.82	C	2,904	0.92	SR 739 6 In DES & ROW Progrmd
30600	US 41 (CLEVELAND AVE)	COLLEGE PKWY	SOUTH RD	State	6LD	D	3,171	C	2,598	0.82	C	2,904	0.92	SR 739 6 In DES & ROW Progrmd
30700	US 41 (CLEVELAND AVE)	SOUTH RD	BOY SCOUT RD	State	6LD	D	3,171	C	2,598	0.82	C	2,904	0.92	SR 739 6 In DES & ROW Progrmd
30800	US 41 (CLEVELAND AVE)	BOY SCOUT RD	NORTH AIRPORT RD	State	6LD	D	3,171	C	2,598	0.82	C	2,904	0.92	SR 739 6 In DES & ROW Progrmd
30810	US 41 (CLEVELAND AVE)	NORTH AIRPORT RD	COLONIAL BLVD	State	6LD	D	3,171	C	2,418	0.76	C	2,704	0.85	
30900	US 41 (CLEVELAND AVE)	CITY LIMITS	N. KEY DR	State	4LD	D	2,100	C	1,996	0.95	F	2,240	1.07	
31000	US 41 (CLEVELAND AVE)	N. KEY DR	HANCOCK B. PKWY	State	4LD	D	2,100	C	1,996	0.95	F	2,240	1.07	
31100	US 41 (CLEVELAND AVE)	HANCOCK B. PKWY	PONDELLA RD	State	4LD	D	2,100	C	1,996	0.95	F	2,240	1.07	
31200	US 41 (CLEVELAND AVE)	PONDELLA RD	SR 78	State	4LD	D	2,100	C	1,362	0.65	C	1,523	0.73	
31300	US 41 (CLEVELAND AVE)	SR 78	LITTLETON RD	State	4LD	D	2,100	C	1,362	0.65	C	1,523	0.73	
31400	US 41 (N TAMIAMI TR)	LITTLETON RD	BUS 41	State	4LD	D	2,100	C	1,087	0.52	C	1,263	0.60	
31500	US 41 (N TAMIAMI TR)	BUS 41	DEL PRADO BLVD	State	4LD	D	2,100	C	1,087	0.52	C	1,263	0.60	
31600	US 41 (N TAMIAMI TR)	DEL PRADO BLVD	CHARLOTTE CO. LINE	State	4LD	D	2,100	C	1,577	0.75	C	1,885	0.90	
29800	US 41 (S TAMIAMI TR)	OLD 41	CORKSCREW RD	State	6LD	D	3,171	C	2,342	0.74	C	2,616	0.82	
29900	US 41 (S TAMIAMI TR)	CORKSCREW RD	SANIBEL BLVD	State	6LD	D	3,171	C	2,294	0.72	C	2,767	0.87	
30000	US 41 (S TAMIAMI TR)	SANIBEL BLVD	ALICO RD	State	6LD	D	3,171	C	2,576	0.81	C	3,011	0.95	
30100	US 41 (S TAMIAMI TR)	ALICO RD	ISLAND PARK RD	State	6LD	D	3,171	C	2,576	0.81	C	3,011	0.95	
30200	US 41 (S TAMIAMI TR)	ISLAND PARK RD	BRIARCLIFF RD	State	6LD	D	3,171	C	3,002	0.95	F	3,356	1.06	

County-Maintained Collector Roadway - Unincorporated Lee County

State-Maintained Arterial Roadway - Unincorporated Lee County

County-Maintained Collector Roadway - Incorporated Lee County

County Maintained Controlled Access Arterial Facility

County-Maintained Arterial Roadway - Unincorporated Lee County

County Maintained Expressway

County-Maintained Arterial Roadway - Incorporated Lee County

Table 21 b): Link-Level Service Volumes and LOS Table

Table 21 b) 7 of 7

LEE COUNTY ROAD LINK VOLUMES (County- and State-Maintained Roadways)														
Link No.	NAME	ROADWAY LINK		F. Class	ROAD TYPE	PERFORMANCE STANDARD		2021 100TH HIGHEST HOUR			FUTURE FORECAST (2026)			Notes
		FROM	TO			LOS	DIRECTIONAL CAPACITY	LOS	VOL	V/C	LOS	VOL	V/C	
30300	US 41 (S TAMIAMI TR)	BRIARCLIFF RD	SIX MILE PKWY	State	6LD	D	3,171	C	3,002	0.95	F	3,356	1.06	
30400	US 41 (S TAMIAMI TR)	SIX MILE PKWY	DANIELS PKWY	State	6LD	D	3,171	C	2,509	0.79	C	2,807	0.89	
27200	VETERANS MEM. PKWY	SR 78	CHIQUITA	Controlled xs	4LD	D	2,040	A	1,000	0.49	A	1,051	0.52	
27300	VETERANS MEM. PKWY	CHIQUITA	SKYLINE	Xprswy	4LD	D	2,040	A	1,195	0.59	A	1,256	0.62	*
27400	VETERANS MEM. PKWY	SKYLINE	SANTA BARBARA BLVD	Xprswy	6LD	D	3,080	A	2,103	0.68	B	2,210	0.72	
27500	VETERANS MEM. PKWY	SANTA BARBARA BLVD	COUNTRY CLUB BLVD	Xprswy	6LD	D	3,080	B	2,968	0.96	F	3,119	1.01	
27600	VETERANS MEM. PKWY	COUNTRY CLUB BLVD	MIDPOINT BRDG TOLL P	Xprswy	6LD	D	3,080	B	2,772	0.90	B	2,913	0.95	
27700	VETERANS MEM. PKWY	MIDPOINT BRDG TOLL P	McGREGOR BLVD	Xprswy	4LB	D	4,000	D	2,964	0.74	D	3,115	0.78	
29100	W. 12TH ST	GUNNERY RD	SUNSHINE BLVD	Maj. Col	2LN	E	860	C	230	0.27	C	241	0.28	* old count projection(2010)
29200	W. 12TH ST	SUNSHINE BLVD	WILLIAMS AVE	Maj. Col	2LN	E	860	C	76	0.09	C	168	0.20	
29300	W. 12TH ST	WILLIAMS AVE	JOEL BLVD	Maj. Col	2LN	E	860	C	92	0.11	C	104	0.12	
29400	W. 14TH ST	SUNSHINE BLVD	RICHMOND AVE	Min. Col	2LN	E	860	C	48	0.06	C	54	0.06	
29000	W. 6TH ST	WILLIAMS AVE	JOEL BLVD	Maj. Col	2LN	E	860	C	181	0.21	C	190	0.22	old count projection(2010)
26400	W23RD ST	GUNNERY RD	SUNSHINE BLVD	M. Art	2LN	E	860	D	763	0.89	D	802	0.93	
15200	WESTGATE BLVD	GUNNERY RD	LEE BLVD	M. Art	2LN	E	860	D	567	0.66	D	623	0.72	
27900	WHISKEY CREEK DR	COLLEGE PKWY	SAUTERN DR	Maj. Col	2LD	E	910	C	298	0.33	C	313	0.34	
28000	WHISKEY CREEK DR	SAUTERN DR	McGREGOR BLVD	Maj. Col	2LD	E	910	C	298	0.33	C	313	0.34	
28200	WILLIAMS AVE	LEE BLVD	W. 6TH ST	Maj. Col	2LN	E	860	D	747	0.87	D	785	0.91	
28300	WINKLER RD	STOCKBRIDGE DR	SUMMERLIN RD	Maj. Col	2LN	E	860	C	461	0.54	C	537	0.62	old count(2010)
28400	WINKLER RD	SUMMERLIN RD	GLADIOLUS DR	M. Art	4LD	E	1,520	C	276	0.18	C	290	0.19	
28500	WINKLER RD	GLADIOLUS DR	BRANDYWINE CIR	M. Art	2LN	E	880	B	593	0.67	B	625	0.71	Year 2010 data
28600	WINKLER RD	BRANDYWINE CIR	CYPRESS LAKE DR	M. Art	2LN	E	880	B	418	0.48	B	439	0.50	
28700	WINKLER RD	CYPRESS LAKE DR	COLLEGE PKWY	M. Art	4LD	E	1,780	D	746	0.42	D	784	0.44	
28800	WINKLER RD	COLLEGE PKWY	McGREGOR BLVD	M. Art	2LN	E	800	B	350	0.44	B	395	0.49	old count projection(Year 2010)
28900	WOODLAND BLVD	US 41	AUSTIN ST	Maj. Col	2LN	E	860	C	266	0.31	C	300	0.35	old count projection(2010)
* Previous Year Data														
	County-Maintained Collector Roadway - Unincorporated Lee County							State-Maintained Arterial Roadway - Unincorporated Lee County						
	County-Maintained Collector Roadway - Incorporated Lee County							County Maintained Controlled Access Arterial Facility						
	County-Maintained Arterial Roadway - Unincorporated Lee County							County Maintained Expressway						
	County-Maintained Arterial Roadway - Incorporated Lee County													

Lee County
Generalized Peak Hour Directional Service Volumes
Urbanized Areas

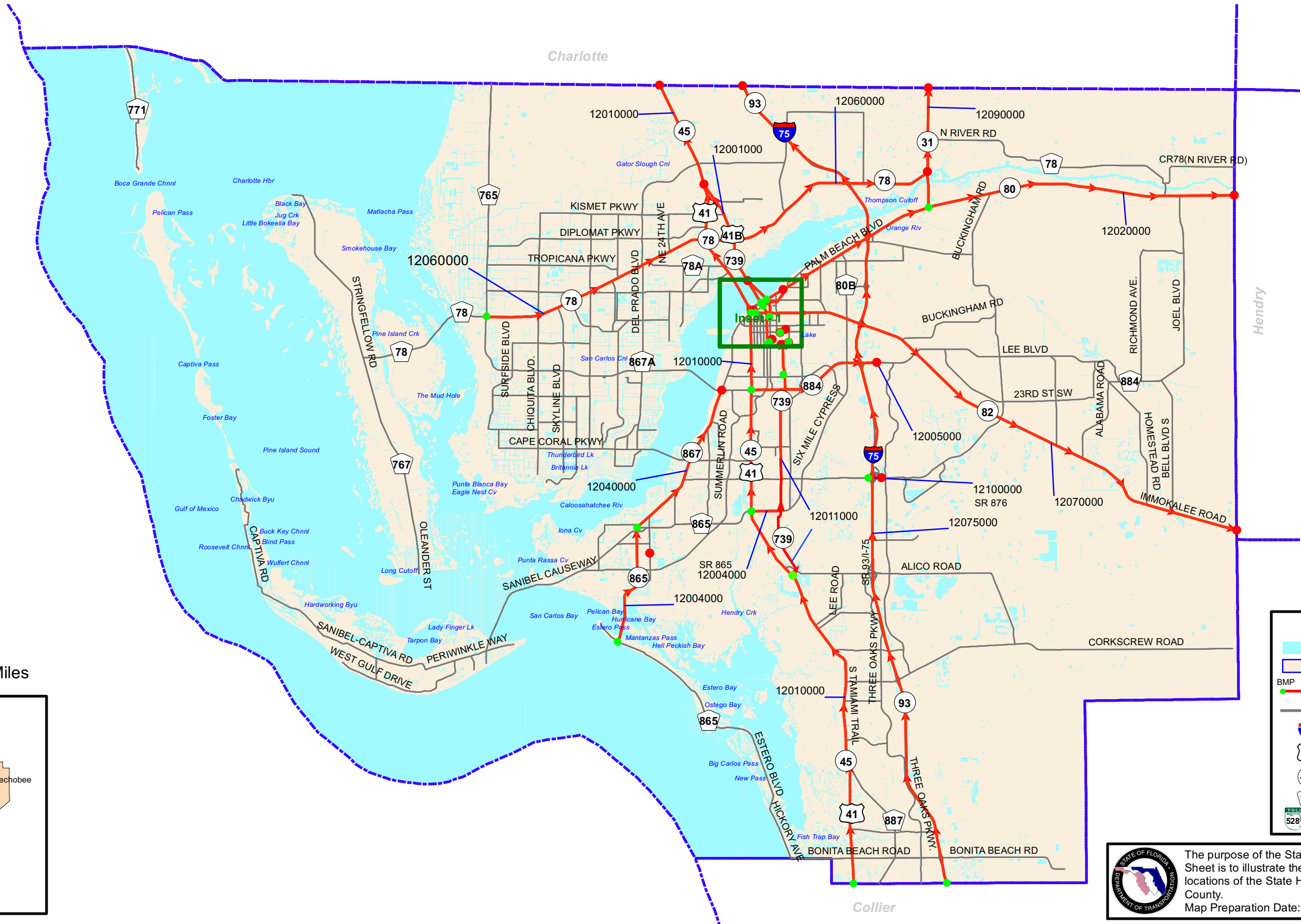
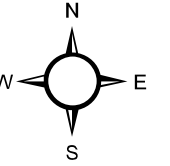
April 2016

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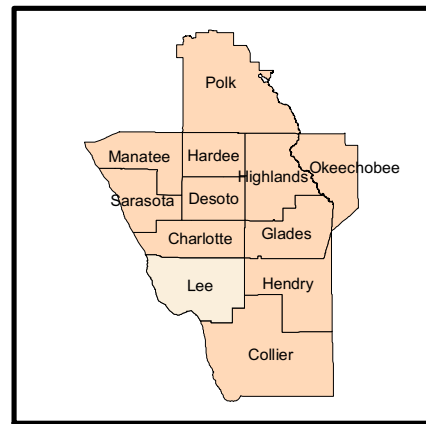
Uninterrupted Flow Highway						
Level of Service						
Lane	Divided	A	B	C	D	E
1	Undivided	130	420	850	1,210	1,640
2	Divided	1,060	1,810	2,560	3,240	3,590
3	Divided	1,600	2,720	3,840	4,860	5,380
Arterials						
Class I (40 mph or higher posted speed limit)						
Level of Service						
Lane	Divided	A	B	C	D	E
1	Undivided	*	140	800	860	860
2	Divided	*	250	1,840	1,960	1,960
3	Divided	*	400	2,840	2,940	2,940
4	Divided	*	540	3,830	3,940	3,940
Class II (35 mph or slower posted speed limit)						
Level of Service						
Lane	Divided	A	B	C	D	E
1	Undivided	*	*	330	710	780
2	Divided	*	*	710	1,590	1,660
3	Divided	*	*	1,150	2,450	2,500
4	Divided	*	*	1,580	3,310	3,340
Controlled Access Facilities						
Level of Service						
Lane	Divided	A	B	C	D	E
1	Undivided	*	160	880	940	940
2	Divided	*	270	1,970	2,100	2,100
3	Divided	*	430	3,050	3,180	3,180
Collectors						
Level of Service						
Lane	Divided	A	B	C	D	E
1	Undivided	*	*	310	660	740
1	Divided	*	*	330	700	780
2	Undivided	*	*	730	1,440	1,520
2	Divided	*	*	770	1,510	1,600
Note: the service volumes for I-75 (freeway), bicycle mode, pedestrian mode, and bus mode should be from FDOT's most current version of LOS Handbook.						

State Highway System Key Sheet

Lee County



3 0 3 Miles



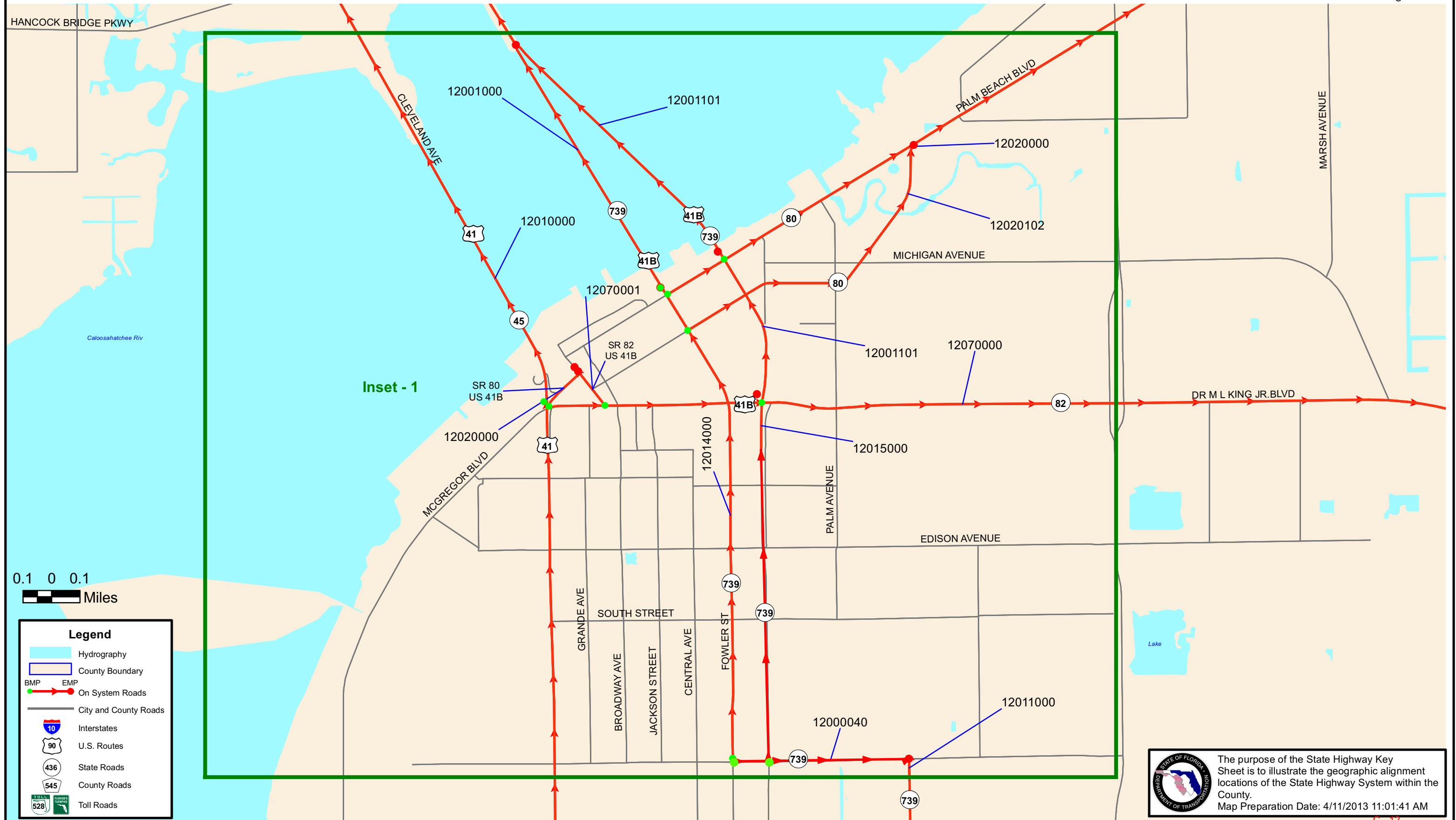
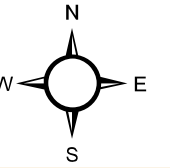
Legend

- Hydrography
- County Boundary
- BMP EMP
- On System Roads
- City and County Roads
- Interstates
- U.S. Routes
- State Roads
- County Roads
- Toll Roads

The purpose of the State Highway Key Sheet is to illustrate the geographic alignment locations of the State Highway System within the County.
 Map Preparation Date: 4/11/2013 11:57:39 AM

State Highway System Key Sheet

Lee County - Inset 1



10 | Florida's LOS Policy

FDOT aims to plan, design, and operate the SHS at an acceptable LOS for the traveling public. LOS targets are consistent with FDOT's Policy on Level of Service Targets for the SHS, [Topic No. 000-525-006](#). The policy outlines the motorized vehicle LOS target for urbanized areas and outside urbanized areas. The motorized vehicle-mode LOS targets for the SHS during peak travel hours are LOS D in urbanized areas and LOS C outside of urbanized areas. FDOT shall work with local governments to establish appropriate LTS targets for multimodal mobility and system design. The targets shall be responsive to all users according to context, roadway function, network design, and user safety.

10.1 Support of Local Government Transportation LOS Policies

Local governments can, but are not required, to extend concurrency requirements to transportation facilities. If concurrency is applied to transportation facilities, the local government comprehensive plan must provide the principles, guidelines, standards, and strategies, including adopted levels of service to guide its application. ([F.S. 163.3180\[5\(a\)\]](#)). Local governments are encouraged to develop tools and techniques to complement the application of transportation concurrency such as:

- Adoption of long-term strategies to facilitate development patterns that support multimodal solutions, including urban design, and appropriate land use mixes, including intensity and density.
- Adoption of an areawide LOS not dependent on any single road segment function.
- Exempting or discounting impacts of locally desired development, such as development in urban areas, redevelopment, job creation, and mixed use on the transportation system.
- Assigning secondary priority to vehicle mobility and primary priority to ensuring a safe, comfortable, and attractive pedestrian environment, with convenient interconnection to transit.
- Establishing multimodal LOS standards that rely primarily on nonvehicular modes of transportation where existing or planned community design will provide adequate level of mobility.
- Reducing impact fees or local access fees to promote development within urban areas, multimodal transportation districts, and a balance of mixed-use development in certain areas or districts, or for affordable or workforce housing.

2019 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 1200 LEE COUNTYWIDE

WEEK	DATES	SF	MOCF: 0.93	
			PSCF	
1	01/01/2019 - 01/05/2019	0.97	1.04	
2	01/06/2019 - 01/12/2019	0.97	1.04	
3	01/13/2019 - 01/19/2019	0.98	1.05	
* 4	01/20/2019 - 01/26/2019	0.96	1.03	
* 5	01/27/2019 - 02/02/2019	0.95	1.02	
* 6	02/03/2019 - 02/09/2019	0.94	1.01	
* 7	02/10/2019 - 02/16/2019	0.92	0.99	
* 8	02/17/2019 - 02/23/2019	0.92	0.99	
* 9	02/24/2019 - 03/02/2019	0.92	0.99	
*10	03/03/2019 - 03/09/2019	0.91	0.98	
*11	03/10/2019 - 03/16/2019	0.91	0.98	
*12	03/17/2019 - 03/23/2019	0.92	0.99	
*13	03/24/2019 - 03/30/2019	0.93	1.00	
*14	03/31/2019 - 04/06/2019	0.94	1.01	
*15	04/07/2019 - 04/13/2019	0.94	1.01	
*16	04/14/2019 - 04/20/2019	0.95	1.02	
17	04/21/2019 - 04/27/2019	0.97	1.04	
18	04/28/2019 - 05/04/2019	0.99	1.06	
19	05/05/2019 - 05/11/2019	1.00	1.08	
20	05/12/2019 - 05/18/2019	1.02	1.10	
21	05/19/2019 - 05/25/2019	1.04	1.12	
22	05/26/2019 - 06/01/2019	1.06	1.14	
23	06/02/2019 - 06/08/2019	1.07	1.15	
24	06/09/2019 - 06/15/2019	1.09	1.17	
25	06/16/2019 - 06/22/2019	1.10	1.18	
26	06/23/2019 - 06/29/2019	1.10	1.18	
27	06/30/2019 - 07/06/2019	1.11	1.19	
28	07/07/2019 - 07/13/2019	1.11	1.19	
29	07/14/2019 - 07/20/2019	1.12	1.20	
30	07/21/2019 - 07/27/2019	1.10	1.18	
31	07/28/2019 - 08/03/2019	1.09	1.17	
32	08/04/2019 - 08/10/2019	1.07	1.15	
33	08/11/2019 - 08/17/2019	1.06	1.14	
34	08/18/2019 - 08/24/2019	1.06	1.14	
35	08/25/2019 - 08/31/2019	1.07	1.15	
36	09/01/2019 - 09/07/2019	1.07	1.15	
37	09/08/2019 - 09/14/2019	1.07	1.15	
38	09/15/2019 - 09/21/2019	1.08	1.16	
39	09/22/2019 - 09/28/2019	1.06	1.14	
40	09/29/2019 - 10/05/2019	1.05	1.13	
41	10/06/2019 - 10/12/2019	1.03	1.11	
42	10/13/2019 - 10/19/2019	1.02	1.10	
43	10/20/2019 - 10/26/2019	1.01	1.09	
44	10/27/2019 - 11/02/2019	1.00	1.08	
45	11/03/2019 - 11/09/2019	0.99	1.06	
46	11/10/2019 - 11/16/2019	0.98	1.05	
47	11/17/2019 - 11/23/2019	0.97	1.04	
48	11/24/2019 - 11/30/2019	0.97	1.04	
49	12/01/2019 - 12/07/2019	0.97	1.04	
50	12/08/2019 - 12/14/2019	0.97	1.04	
51	12/15/2019 - 12/21/2019	0.97	1.04	
52	12/22/2019 - 12/28/2019	0.97	1.04	
53	12/29/2019 - 12/31/2019	0.98	1.05	

* PEAK SEASON

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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

SITE: 0006 - SR 80 W OF HERZOG ROAD

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2022	27000	C	E 13500		W 13500	9.50	52.10	16.30
2021	23500	C	E 12000		W 11500	9.50	52.80	15.00
2020	24000	C	E 12000		W 12000	9.50	53.70	13.00
2019	23000	C	E 11500		W 11500	9.50	54.00	13.10
2018	22000	C	E 11000		W 11000	9.50	55.20	12.40
2017	20000	C	E 10000		W 10000	9.50	54.40	14.00
2016	20000	C	E 10000		W 10000	9.00	57.70	12.40
2015	17700	C	E 8900		W 8800	9.00	57.50	13.30
2014	15600	S	E 7800		W 7800	9.00	56.80	10.90
2013	15200	F	E 7600		W 7600	9.00	56.50	10.90
2012	15200	C	E 7600		W 7600	9.00	54.20	10.90
2011	15200	F	E 7500		W 7700	9.00	56.20	14.10
2010	15200	C	E 7500		W 7700	9.91	56.34	14.10
2009	15600	C	E 7600		W 8000	9.98	55.90	15.90
2008	15500	C	E 7700		W 7800	10.16	57.01	13.40
2007	18000	C	E 8900		W 9100	10.16	54.76	17.50

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

SITE: 0012 - SR 80, EAST OF OLD OLGA ROAD/BUCKINGHAM ROAD LC362

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2022	33000	F	E 16500		W 16500	9.00	52.10	13.50
2021	30000	C	E 15000		W 15000	9.00	52.80	13.50
2020	29000	C	E 14500		W 14500	9.00	53.70	12.40
2019	28000	C	E 14000		W 14000	9.00	54.00	12.40
2018	26000	C	E 13000		W 13000	9.00	55.20	12.40
2017	24000	C	E 12000		W 12000	9.00	54.40	11.80
2016	23500	C	E 11500		W 12000	9.00	57.70	10.30
2015	21000	C	E 10500		W 10500	9.00	57.50	10.20
2014	18200	S	E 9100		W 9100	9.00	56.80	12.00
2013	17800	F	E 8900		W 8900	9.00	56.50	12.00
2012	17800	C	E 8900		W 8900	9.00	54.20	12.00
2011	21000	F	E 10500		W 10500	9.00	56.20	12.50
2010	21000	C	E 10500		W 10500	9.91	56.34	12.50
2009	21000	C	E 10500		W 10500	9.98	55.90	13.70
2008	21000	C	E 10500		W 10500	10.16	57.01	11.20
2007	23000	C	E 11500		W 11500	10.16	54.76	15.60

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

SITE: 0030 - SR 31, NORTH OF SR 80/PALM BEACH BOULEVARD LC391

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2022	16600 C	N	7900	S	8700	9.00	52.10	21.90
2021	15900 C	N	7900	S	8000	9.00	52.80	14.20
2020	13800 C	N	6600	S	7200	9.00	53.70	17.80
2019	13500 C	N	6600	S	6900	9.00	54.00	20.80
2018	11500 C	N	5600	S	5900	9.00	55.20	18.60
2017	11200 C	N	5500	S	5700	9.00	54.40	19.00
2016	11100 F	N	5500	S	5600	9.00	57.70	12.50
2015	10100 C	N	5000	S	5100	9.00	57.50	12.50
2014	8700 F	N	4300	S	4400	9.00	56.80	14.90
2013	8500 C	N	4200	S	4300	9.00	56.50	14.90
2012	8700 C	N	4400	S	4300	9.00	54.20	13.80
2011	8500 F	N	4200	S	4300	9.00	56.20	13.70
2010	8500 C	N	4200	S	4300	9.91	56.34	13.70
2009	7800 C	N	3800	S	4000	9.98	55.90	13.40
2008	8500 C	N	4200	S	4300	10.16	57.01	12.80
2007	8700 C	N	4300	S	4400	10.16	54.76	10.80

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

SITE: 0085 - SR 80/PALM BEACH BLVD, EAST OF SR 31

LC360

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2022	47000	C	E 23500		W 23500	9.00	52.10	7.40
2021	43000	C	E 21500		W 21500	9.00	52.80	7.50
2020	36500	C	E 18000		W 18500	9.00	53.70	8.30
2019	36500	C	E 18000		W 18500	9.00	54.00	9.00
2018	33500	C	E 16500		W 17000	9.00	55.20	9.30
2017	33500	C	E 16500		W 17000	9.00	54.40	8.50
2016	35000	C	E 17500		W 17500	9.00	57.70	8.20
2015	32000	C	E 16000		W 16000	9.00	57.50	9.00
2014	29500	S	E 15000		W 14500	9.00	56.80	9.20
2013	28500	F	E 14500		W 14000	9.00	56.50	9.20
2012	28500	C	E 14500		W 14000	9.00	54.20	9.20
2011	29500	F	E 14500		W 15000	9.00	56.20	9.40
2010	29500	C	E 14500		W 15000	9.91	56.34	9.40
2009	29500	C	E 14500		W 15000	9.98	55.90	9.50
2008	30000	C	E 15000		W 15000	10.16	57.01	8.10
2007	34000	C	E 17000		W 17000	10.16	54.76	8.50

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
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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

SITE: 0086 - SR-80/PALM BEACH BLVD, W OF HENDRY COUNTY LC358

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2022	23000	F	E 11500		W 11500	9.50	52.10	15.80
2021	21000	C	E 10500		W 10500	9.50	52.80	15.80
2020	20000	C	E 10000		W 10000	9.50	53.70	14.70
2019	18600	C	E 9300		W 9300	9.50	54.00	15.60
2018	17300	C	E 8600		W 8700	9.50	55.20	15.90
2017	16900	C	E 8400		W 8500	9.50	54.40	13.70
2016	15700	C	E 7800		W 7900	9.00	57.70	12.60
2015	14600	C	E 7300		W 7300	9.00	52.00	13.00
2014	13100	S	E 6600		W 6500	9.00	52.30	13.60
2013	12700	F	E 6400		W 6300	9.00	56.30	13.60
2012	12500	C	E 6300		W 6200	9.00	59.60	13.60
2011	13700	C	E 7000		W 6700	9.00	56.40	12.40
2010	12700	C	E 6200		W 6500	11.06	64.00	13.90

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

SITE: 1001 - SR 31, SOUTH OF CR 78/NORTH RIVER ROAD (LC393)

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2022	17800 C	N	8800	S	9000	9.50	52.10	25.40
2021	16000 C	N	8000	S	8000	9.50	52.80	23.30
2020	11000 C	N	5500	S	5500	9.50	53.70	23.40
2019	11000 C	N	5500	S	5500	9.50	54.00	25.30
2018	9400 C	N	4700	S	4700	9.50	55.20	26.90
2017	8800 C	N	4500	S	4300	9.50	54.40	20.20
2016	8600 F	N	4200	S	4400	9.50	57.70	20.20
2015	7800 C	N	3800	S	4000	9.50	57.50	20.20
2014	7200 F	N	3600	S	3600	9.50	56.80	20.50
2013	7000 C	N	3500	S	3500	9.50	56.50	20.50
2012	7500 C	N	3800	S	3700	9.50	54.20	22.60
2011	7300 F	N	3700	S	3600	9.50	56.20	17.60
2010	7300 C	N	3700	S	3600	9.91	56.34	17.60
2009	7100 C	N	3600	S	3500	9.98	55.90	19.70
2008	7700 C	N	3900	S	3800	10.16	57.01	23.50
2007	9200 C	N	4600	S	4600	10.16	54.76	32.60

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

SITE: 4183 - BUCKINGHAM RD, E OF ALVIN AVE

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2022	11900 C		E 5700		W 6200	9.50	53.90	10.40
2021	11500 X		0		0	9.50	53.50	14.50
2020	11000 E		0		0	9.50	57.10	8.20
2019	11000 F	E		W		9.50	55.70	8.20
2018	10600 C	E	5400	W	5200	9.50	53.30	8.20
2017	8400 T	E	4100	W	4300	9.50	55.40	10.50
2016	7800 S	E	3800	W	4000	9.50	63.90	8.40
2015	7400 F	E	3600	W	3800	9.50	55.50	8.40
2014	7000 C	E	3400	W	3600	9.50	55.20	8.40
2013	6200 S		0		0	9.00	55.00	10.50
2012	6200 F		0		0	9.00	55.30	11.50
2011	6200 C	E	0	W	0	9.00	55.20	11.70

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

SITE: 4202 - ORANGE RIVER BLVD, W OF BUCKINGHAM RD

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2022	10800 S	E	5300	W	5500	9.50	53.90	9.80
2021	10400 F	E	5100	W	5300	9.50	53.50	9.90
2020	9800 C	E	4800	W	5000	9.50	53.80	6.90
2019	8800 F	E	4400	W	4400	9.50	54.90	7.70
2018	8400 C	E	4200	W	4200	9.50	55.20	8.00
2017	7500 S	E	3700	W	3800	9.50	54.90	7.40
2016	7100 F	E	3500	W	3600	9.50	54.80	7.00
2015	6700 C	E	3300	W	3400	9.50	55.50	5.90
2014	6400 S					9.50	55.20	15.60
2013	6300 F		0		0	9.50	55.00	5.10
2012	6300 C	E	0	W	0	9.50	55.30	5.60

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
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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

SITE: 4650 - NORTH RIVER ROAD, EAST OF S.R. 31

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2022	3800 R	E	1900	W	1900	9.50	53.90	15.00
2021	3600 T	E	1800	W	1800	9.50	53.50	13.60
2020	3400 S	E	1700	W	1700	9.50	53.80	12.50
2019	3400 F	E	1700	W	1700	9.50	54.90	12.50
2018	3200 C	E	1600	W	1600	9.50	55.20	12.50
2017	3200 T	E	1600	W	1600	9.50	54.90	12.20
2016	3000 S	E	1500	W	1500	9.50	54.80	15.00
2015	2800 F	E	1400	W	1400	9.50	55.50	15.00
2014	2600 C	E	1300	W	1300	9.50	55.20	15.00
2013	1000 S		0		0	9.50	55.00	12.20
2012	1000 F		0		0	9.50	55.30	11.50
2011	1000 C	E	0	W	0	9.50	55.20	11.70

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
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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

SITE: 4656 - BUCKINGHAM / ORANGE ROAD, NORTH OF ASTORIA AVENUE

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2022	13300	C	N 6700		S 6600	9.50	53.90	12.80
2021	10800	T	N 5300		S 5500	9.50	53.50	11.70
2020	10200	S	N 5000		S 5200	9.50	53.80	13.90
2019	10200	F	N 5000		S 5200	9.50	54.90	13.90
2018	9800	C	N 4800		S 5000	9.50	55.20	13.90
2017	9400	T	N 4700		S 4700	9.50	54.90	11.10
2016	9000	S	N 4500		S 4500	9.50	54.80	8.30
2015	8400	F	N 4200		S 4200	9.50	55.50	8.30
2014	8000	C	N 4000		S 4000	9.50	55.20	8.30
2013	8400	S	0		0	9.50	55.00	14.20
2012	8400	F	0		0	9.50	55.30	10.80
2011	8500	C	N 0		S 0	9.50	55.20	12.40

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
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V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

SITE: 5020 - SR 80/PALM BEACH BLVD, NE OF CR 80B/ORTIZ AV LC359

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2022	29500	C	E 14500		W 15000	9.00	53.70	9.80
2021	26000	C	E 13000		W 13000	9.00	53.10	7.70
2020	22500	C	E 11000		W 11500	9.00	52.80	8.10
2019	25000	C	E 12000		W 13000	9.00	53.30	5.80
2018	24500	C	E 12000		W 12500	9.00	53.30	8.20
2017	25000	C	E 12500		W 12500	9.00	53.20	7.00
2016	25000	C	E 12500		W 12500	9.00	53.30	6.70
2015	23000	C	E 11500		W 11500	9.00	53.80	5.20
2014	22000	F	E 11000		W 11000	9.00	53.70	6.20
2013	22000	C	E 11000		W 11000	9.00	63.60	6.20
2012	22000	C	E 11000		W 11000	9.00	63.80	4.80
2011	23500	F	E 11500		W 12000	9.00	63.20	5.20
2010	23500	C	E 11500		W 12000	10.44	63.55	5.20
2009	23500	C	E 11500		W 12000	10.17	64.21	5.70
2008	27500	F	E 14000		W 13500	10.65	68.54	5.30
2007	28500	C	E 14500		W 14000	10.16	54.76	5.40

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
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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

SITE: 6005 - SR 80/PALM BEACH BLVD, 0.25 MI W OF SR 31. PTMS 104, LCPR 05

YEAR	AADT		DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----	-----	-----	-----	-----
2022	34500	X	0	0	9.00	52.10	7.40
2021	34000	T	0	0	9.00	52.80	11.70
2020	33500	S	0	0	9.00	53.70	11.50
2019	35000	F	0	0	9.00	54.00	12.30
2018	35091	C	0	0	9.00	64.90	12.60
2017	34000	F	0	0	9.00	64.90	11.10
2016	32970	C	E 16326	W 16644	9.00	64.90	10.40
2015	30167	C	E 14945	W 15222	9.00	63.20	11.00
2014	27785	C	E 13885	W 13900	9.00	62.60	5.90
2013	26228	C	E 12981	W 13247	9.00	61.80	9.50
2012	25563	C	E 12791	W 12772	9.00	61.60	10.80
2011	26888	C	E 13397	W 13491	9.00	61.60	12.40
2010	26743	C	E 13334	W 13409	9.89	61.01	8.90
2009	25939	C	E 12914	W 13025	9.90	62.73	9.60
2008	26004	C	E 12909	W 13095	10.24	63.18	9.20

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

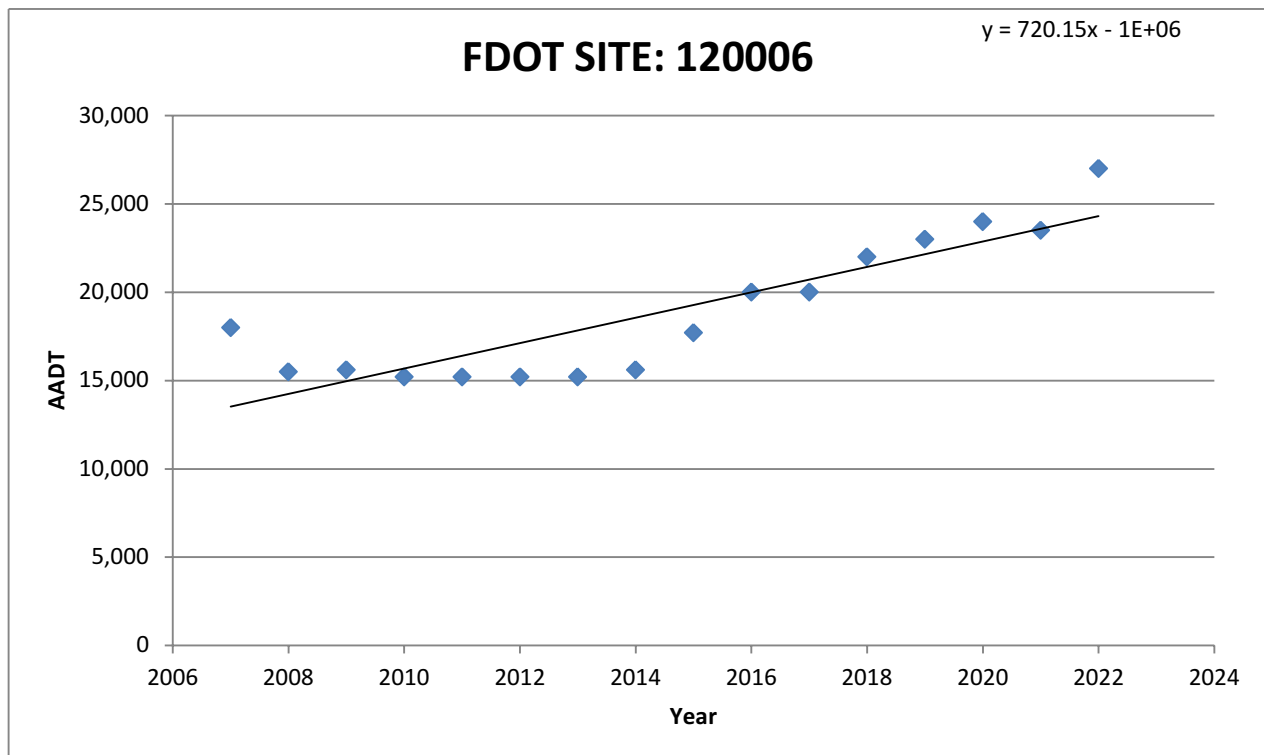
SITE: 6011 - BUCKINGHAM RD, 0.5 MI S OF SR 80/PALM BEACH BLVD, PTMS 2011, LCPR 11

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR	
----	-----		-----		-----	-----	-----	-----	
2022	10500	X		0		0	9.00	53.90	15.00
2021	10500	T		0		0	9.00	53.50	13.60
2020	10000	S		0		0	9.00	53.40	13.00
2019	10500	F		0		0	9.00	53.80	12.70
2018	10538	C		0		0	9.00	53.30	12.30
2017	9800	F		0		0	9.00	55.40	12.20
2016	9856	C	N	4913	S	4943	9.00	63.90	11.20
2015	9348	C	N	4665	S	4683	9.00	51.70	11.50
2014	9120	C	N	4581	S	4539	9.00	51.70	11.80
2013	8793	C	N	4369	S	4424	9.00	51.70	12.20
2012	8700	C	N	4290	S	4410	9.00	52.30	11.50
2011	8444	C	N	4178	S	4266	9.00	52.80	11.70
2010	8378	C	N	4156	S	4222	10.47	55.10	13.30
2009	8500	C	N	0	S	0	9.27	57.21	14.80
2008	8212	C	N	4103	S	4109	9.21	58.32	9.00

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

FDOT SITE: 120006
SR 80 W OF HERZOG ROAD

Year	AADT ⁽¹⁾	Equation		Growth
2022	27,000	y_1	x_1	2.3% per year
2021	23,500	23,371	2022	
2020	24,000			
2019	23,000	y_2	x_2	
2018	22,000	25,512	2026	
2017	20,000			
2016	20,000			
2015	17,700			
2014	15,600			
2013	15,200			
2012	15,200			
2011	15,200			
2010	15,200			
2009	15,600			
2008	15,500			
2007	18,000			
2006	18,600			
2005	17,500			

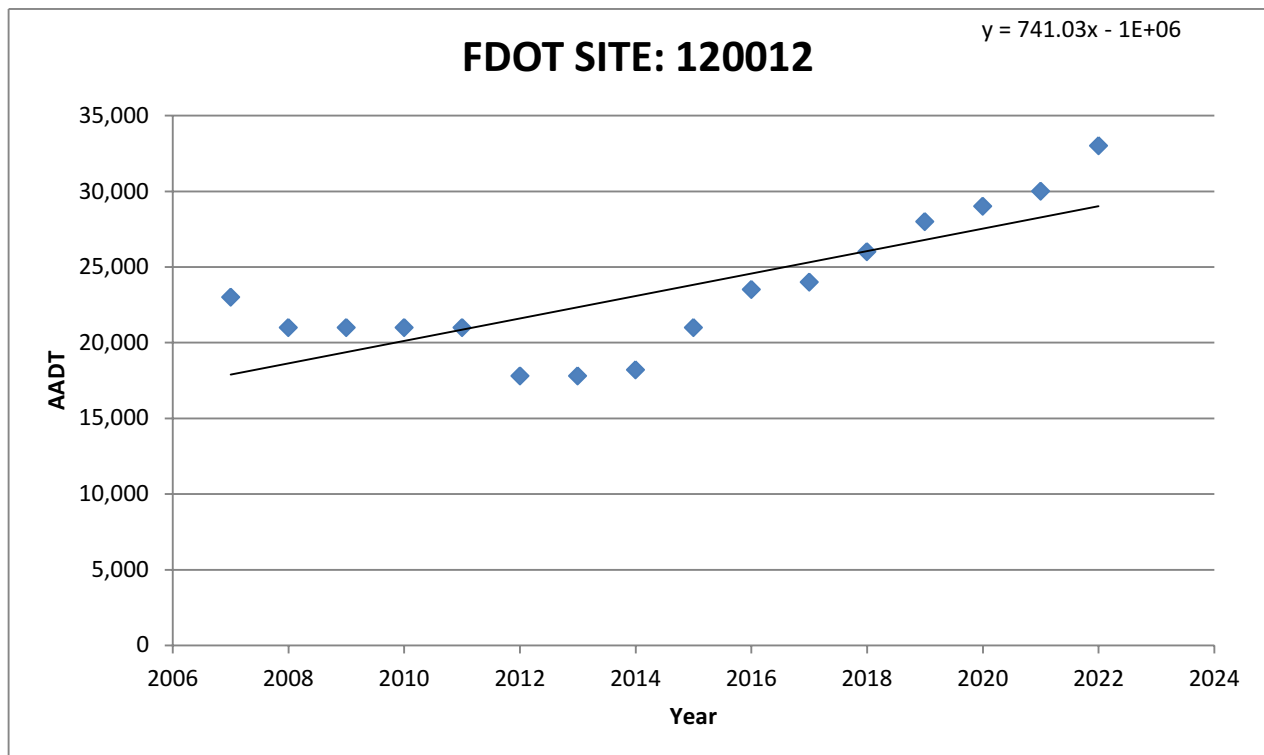


Footnotes:

(1) FDOT Traffic Online (2022 Data)

FDOT SITE: 120012
SR 80, EAST OF OLD OLGA ROAD/BUCKINGHAM ROAD LC362

Year	AADT ⁽¹⁾	Equation		Growth
2022	33,000	y_1	x_1	2.1% per year
2021	30,000	28,246	2022	
2020	29,000			
2019	28,000	y_2	x_2	
2018	26,000	30,616	2026	
2017	24,000			
2016	23,500			
2015	21,000			
2014	18,200			
2013	17,800			
2012	17,800			
2011	21,000			
2010	21,000			
2009	21,000			
2008	21,000			
2007	23,000			
2006	21,000			
2005	21,500			

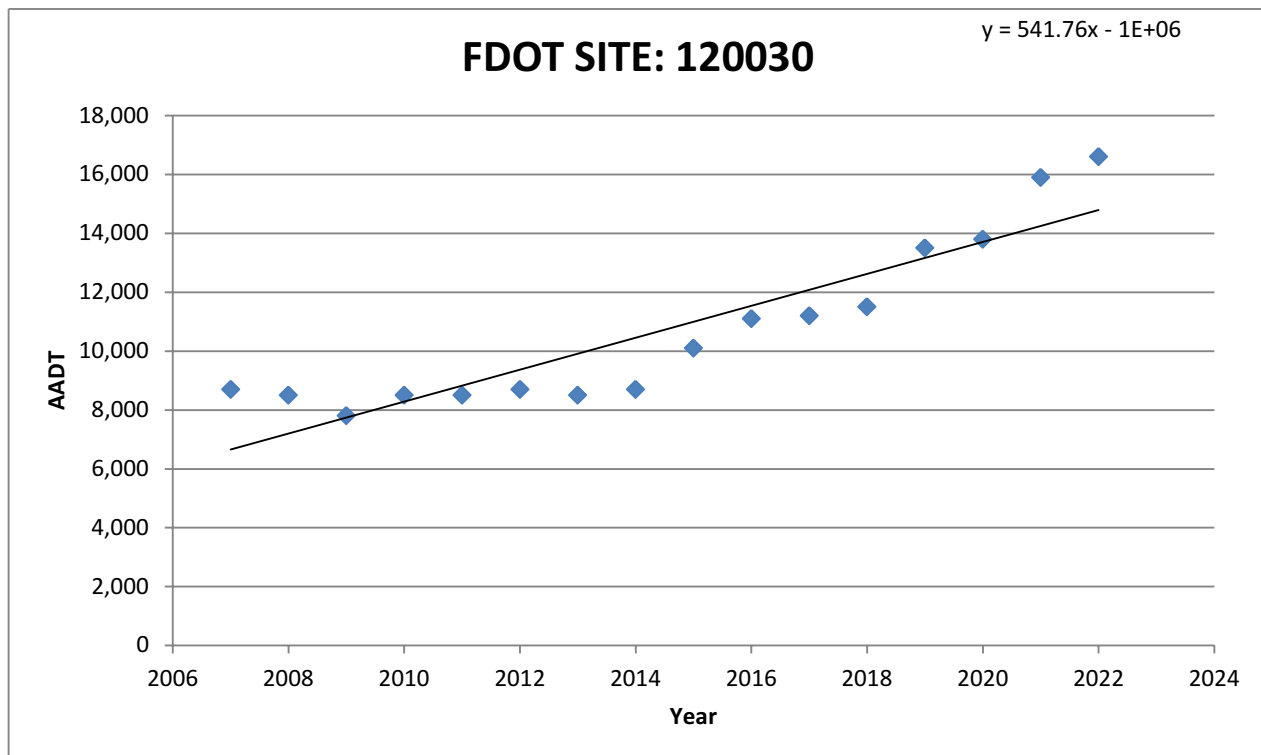


Footnotes:

(1) FDOT Traffic Online (2022 Data)

FDOT SITE: 120030
SR 31, NORTH OF SR 80/PALM BEACH BOULEVARD

Year	AADT ⁽¹⁾	Equation	Growth
2022	16,600	$y_1 \quad x_1$	2.6% per year
2021	15,900	13,843 2022	
2020	13,800		
2019	13,500	$y_2 \quad x_2$	
2018	11,500	15,269 2026	
2017	11,200		
2016	11,100		
2015	10,100		
2014	8,700		
2013	8,500		
2012	8,700		
2011	8,500		
2010	8,500		
2009	7,800		
2008	8,500		
2007	8,700		
2006	12,500		
2005	10,500		

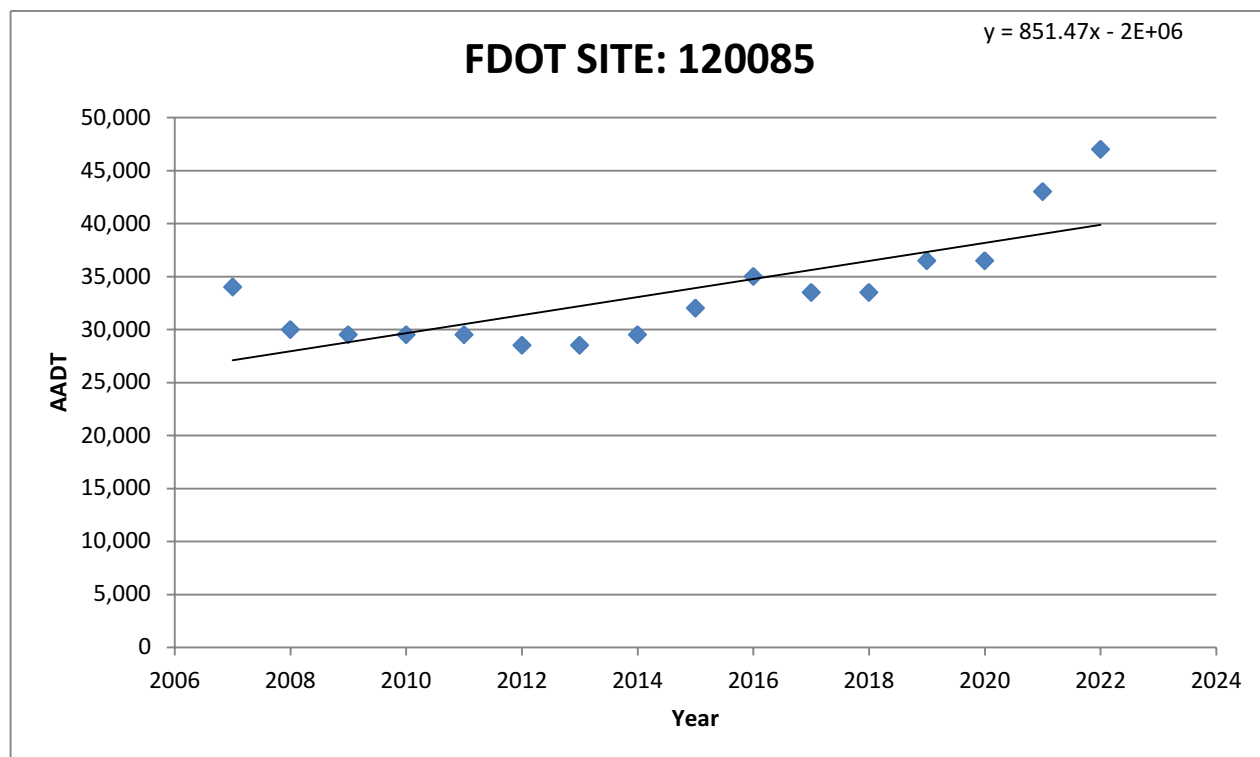


Footnotes:

(1) FDOT Traffic Online (2022 Data)

FDOT SITE: 120085
SR 80/PALM BEACH BLVD, EAST OF SR 31

Year	AADT ⁽¹⁾	Equation	Growth
2022	47,000	$y_1 \quad x_1$	1.5% per year
2021	43,000	38,576 2022	
2020	36,500		
2019	36,500	$y_2 \quad x_2$	
2018	33,500	40,952 2026	
2017	33,500		
2016	35,000		
2015	32,000		
2014	29,500		
2013	28,500		
2012	28,500		
2011	29,500		
2010	29,500		
2009	29,500		
2008	30,000		
2007	34,000		
2006	36,000		
2005	31,500		

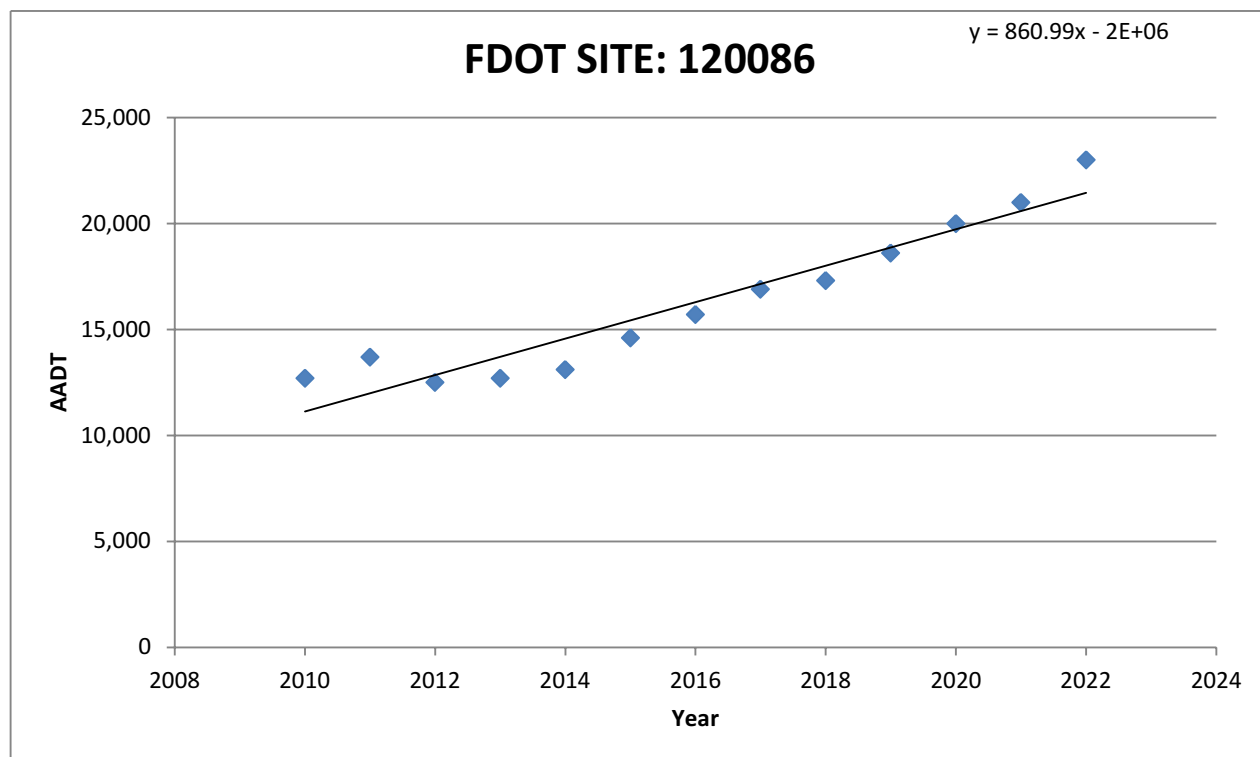


Footnotes:

(1) FDOT Traffic Online (2022 Data)

FDOT SITE: 120086
SR-80/PALM BEACH BLVD, W OF HENDRY COUNTY LC358

Year	AADT ⁽¹⁾	Equation		Growth
2022	23,000	y_1	x_1	4.0% per year
2021	21,000	21,458	2022	
2020	20,000			
2019	18,600	y_2	x_2	
2018	17,300	24,902	2026	
2017	16,900			
2016	15,700			
2015	14,600			
2014	13,100			
2013	12,700			
2012	12,500			
2011	13,700			
2010	12,700			

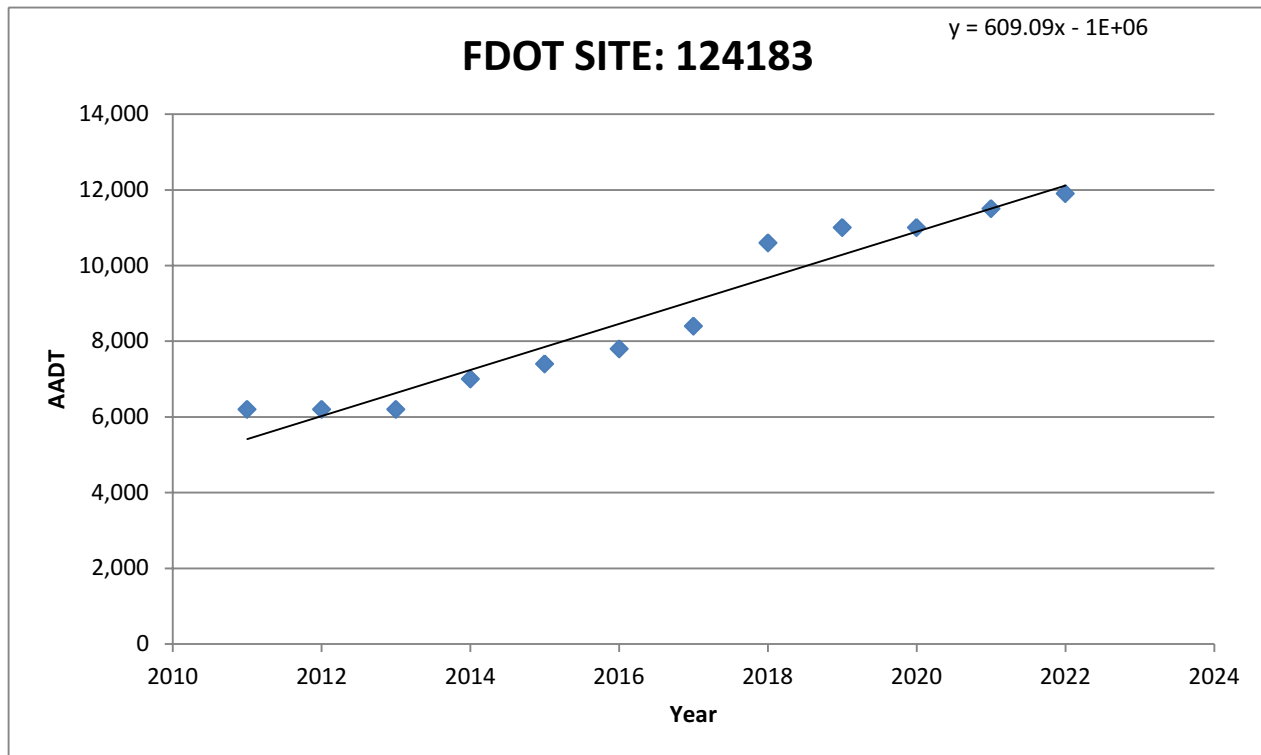


Footnotes:

(1) FDOT Traffic Online (2022 Data)

FDOT SITE: 124183
BUCKINGHAM RD, E OF ALVIN AVE

Year		Equation	Growth
2022	11,900	y_1 x_1	5.0% per year
2021	11,500	12,117 2022	
2020	11,000		
2019	11,000	y_2 x_2	
2018	10,600	14,553 2026	
2017	8,400		
2016	7,800		
2015	7,400		
2014	7,000		
2013	6,200		
2012	6,200		
2011	6,200		

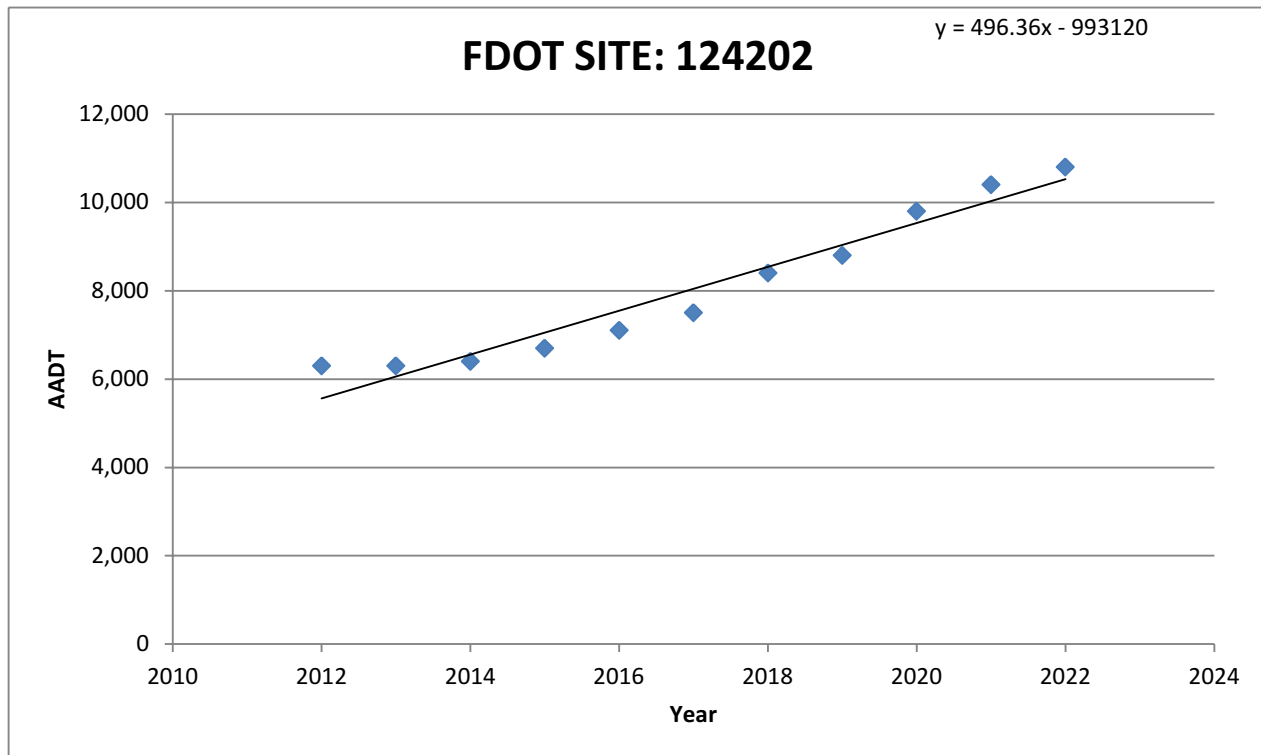


Footnotes:

(1) FDOT Traffic Online (2022 Data)

FDOT SITE: 124202
ORANGE RIVER BLVD, W OF BUCKINGHAM RD

Year		Equation	Growth
2022	10,800	y_1	4.7% per year
2021	10,400	x_1	
2020	9,800	10,527	2022
2019	8,800	y_2	
2018	8,400	x_2	
2017	7,500	12,513	2026
2016	7,100		
2015	6,700		
2014	6,400		
2013	6,300		
2012	6,300		

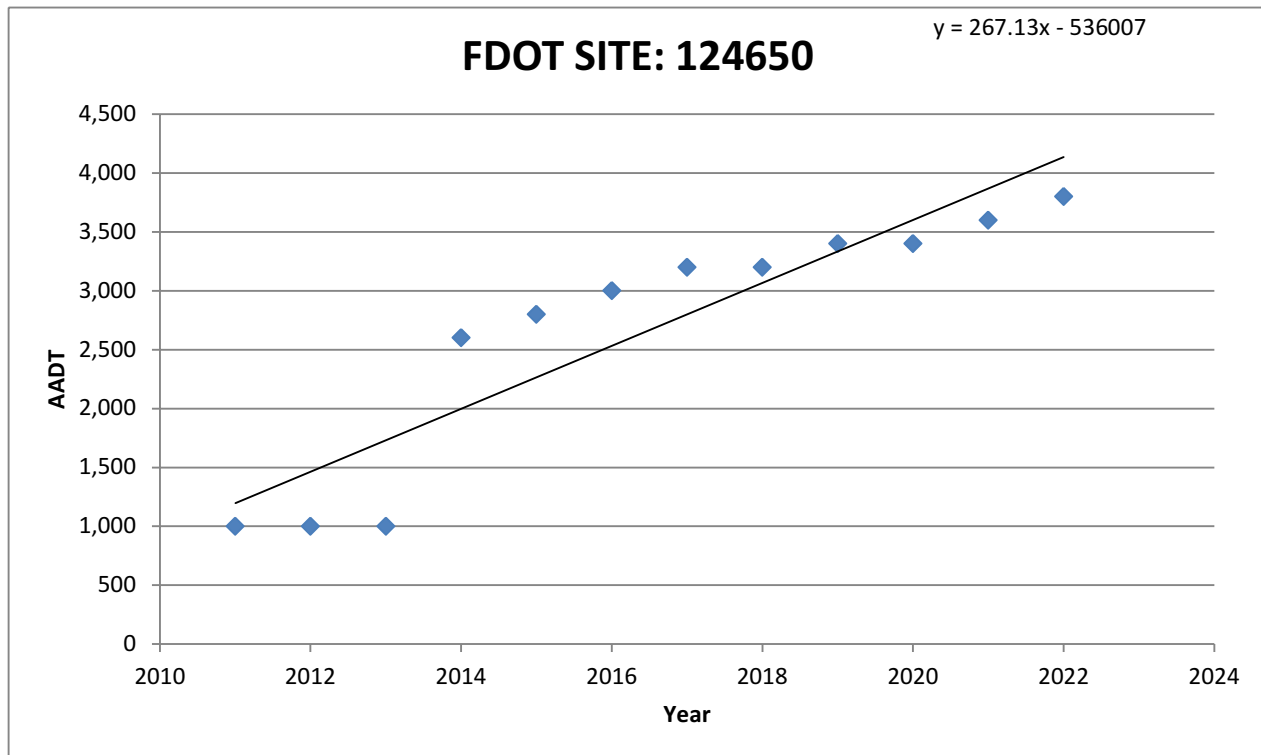


Footnotes:

(1) FDOT Traffic Online (2022 Data)

FDOT SITE: 124650
NORTH RIVER ROAD, EAST OF S.R. 31

Year		Equation	Growth
2022	3,800	y_1 x_1	6.5% per year
2021	3,600	4,136 2022	
2020	3,400		
2019	3,400	y_2 x_2	
2018	3,200	5,204 2026	
2017	3,200		
2016	3,000		
2015	2,800		
2014	2,600		
2013	1,000		
2012	1,000		
2011	1,000		

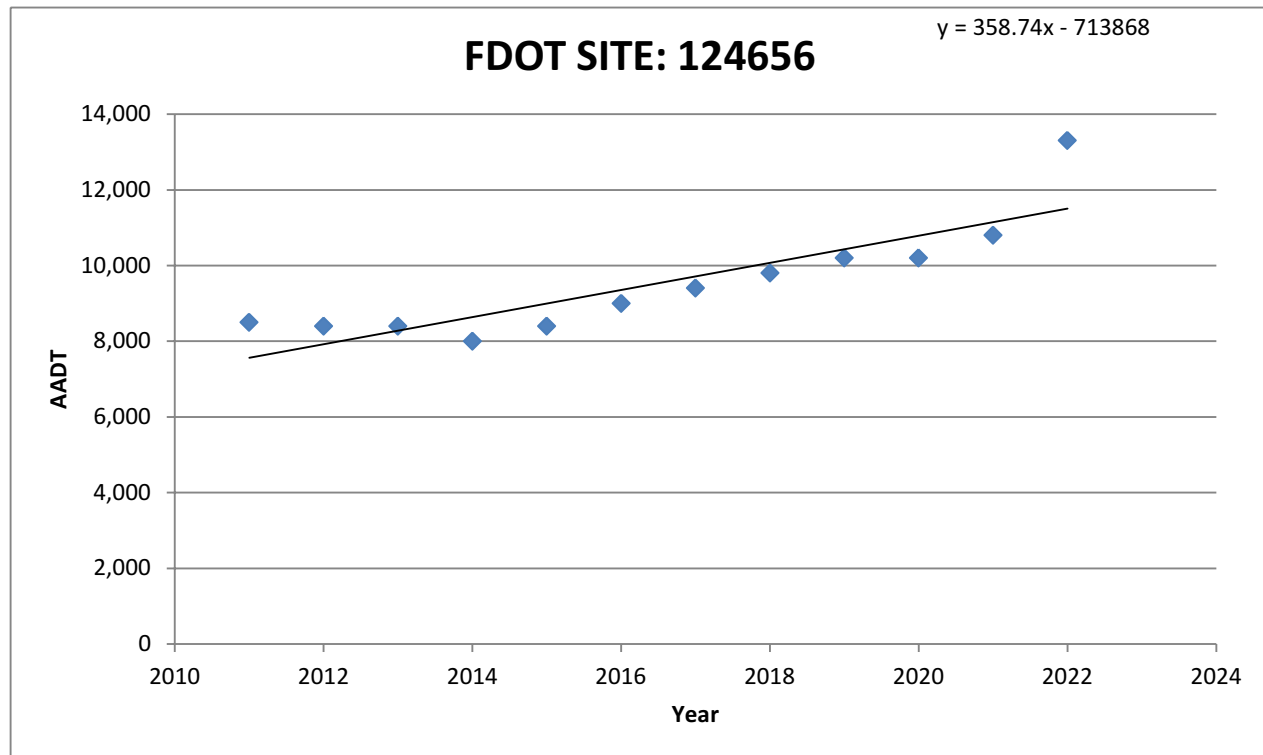


Footnotes:

(1) FDOT Traffic Online (2022 Data)

FDOT SITE: 124656
BUCKINGHAM/ORANGE RIVER ROAD, NORTH OF ASTORIA AVENUE

Year		Equation	Growth
2022	13,300	y_1 x_1	3.1% per year
2021	10,800	11,506 2022	
2020	10,200		
2019	10,200	y_2 x_2	
2018	9,800	12,941 2026	
2017	9,400		
2016	9,000		
2015	8,400		
2014	8,000		
2013	8,400		
2012	8,400		
2011	8,500		

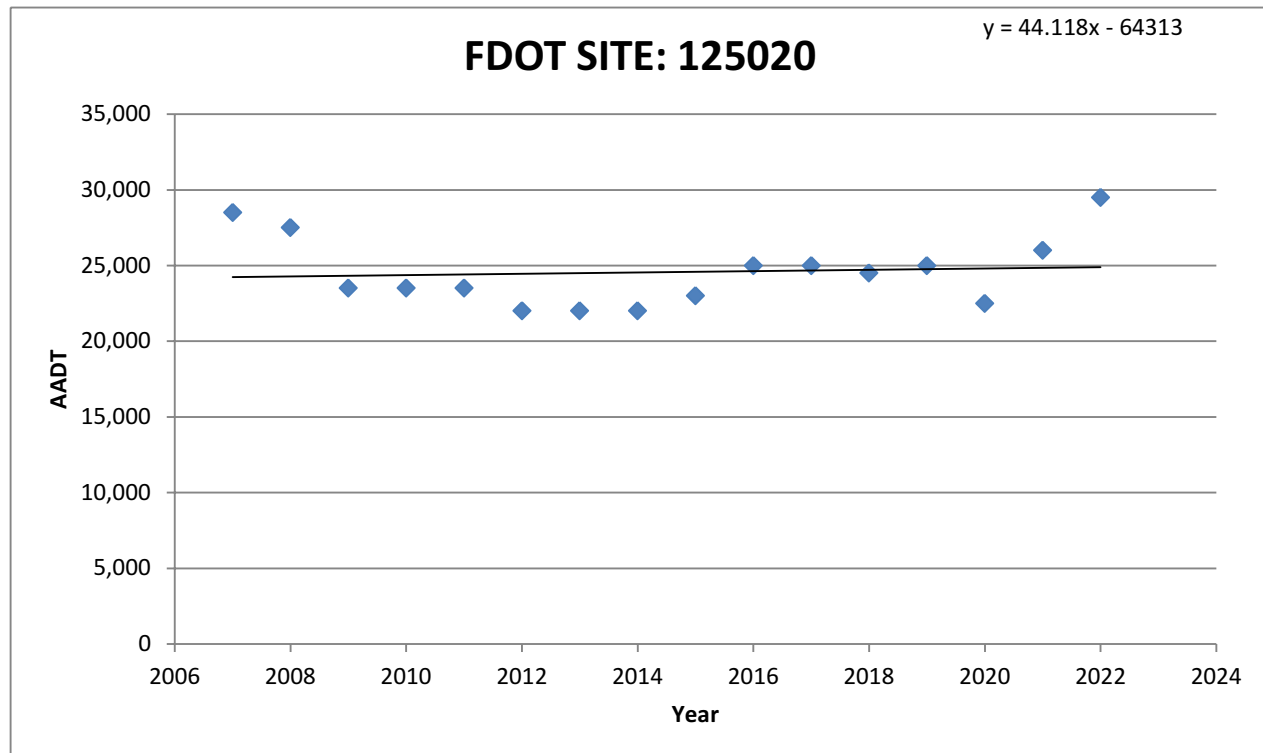


Footnotes:

(1) FDOT Traffic Online (2022 Data)

FDOT SITE: 125020
SR 80/PALM BEACH BLVD, NE OF CR 80B/ORTIZ AV

Year		Equation	Growth
2022	29,500	y_1	-0.8% per year
2021	26,000	x_1	
2020	22,500	23,743	2022
2019	25,000	y_2	
2018	24,500	x_2	
2017	25,000	23,020	2026
2016	25,000		
2015	23,000		
2014	22,000		
2013	22,000		
2012	22,000		
2011	23,500		
2010	23,500		
2009	23,500		
2008	27,500		
2007	28,500		
2006	31,500		
2005	30,500		

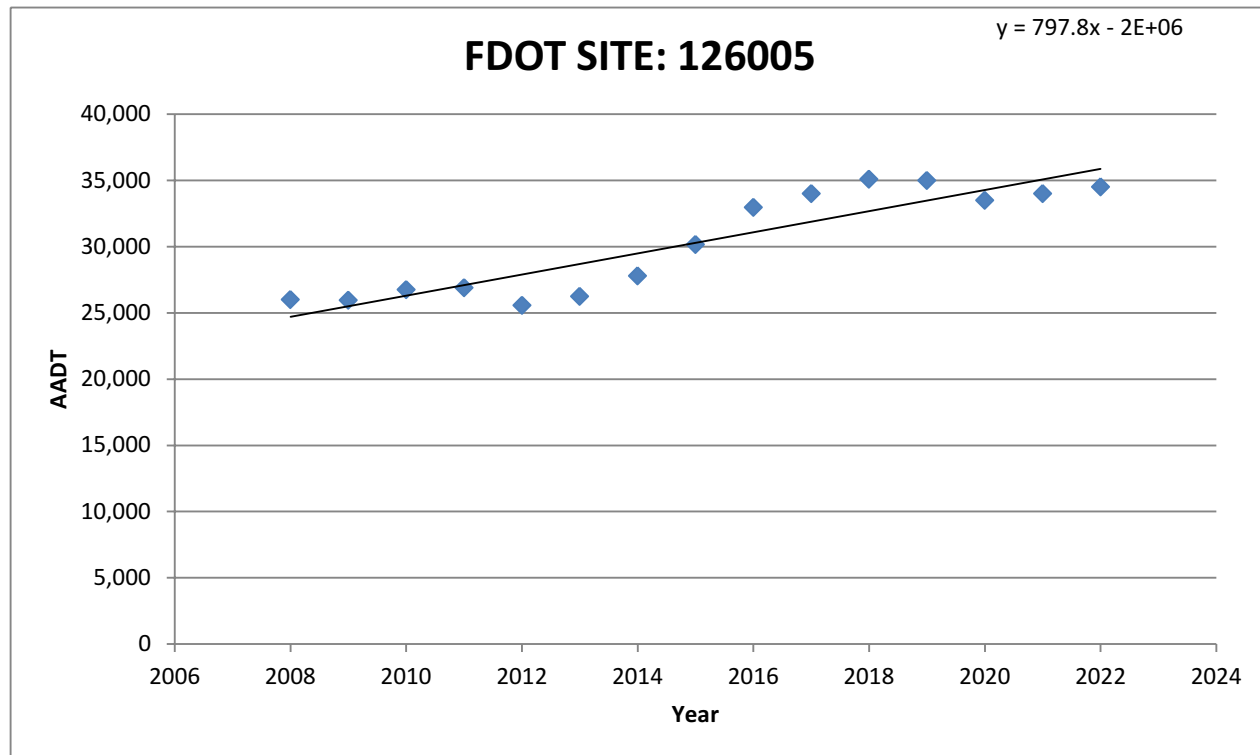


Footnotes:

(1) FDOT Traffic Online (2022 Data)

FDOT SITE: 126005
SR 80/PALM BEACH BLVD, 0.25 MI W OF SR 31. PTMS 104, LCPR 05

Year		Equation	Growth
2022	34,500	y_1 x_1	2.2% per year
2021	34,000	35,876 2022	
2020	33,500		
2019	35,000	y_2 x_2	
2018	35,091	39,068 2026	
2017	34,000		
2016	32,970		
2015	30,167		
2014	27,785		
2013	26,228		
2012	25,563		
2011	26,888		
2010	26,743		
2009	25,939		
2008	26,004		

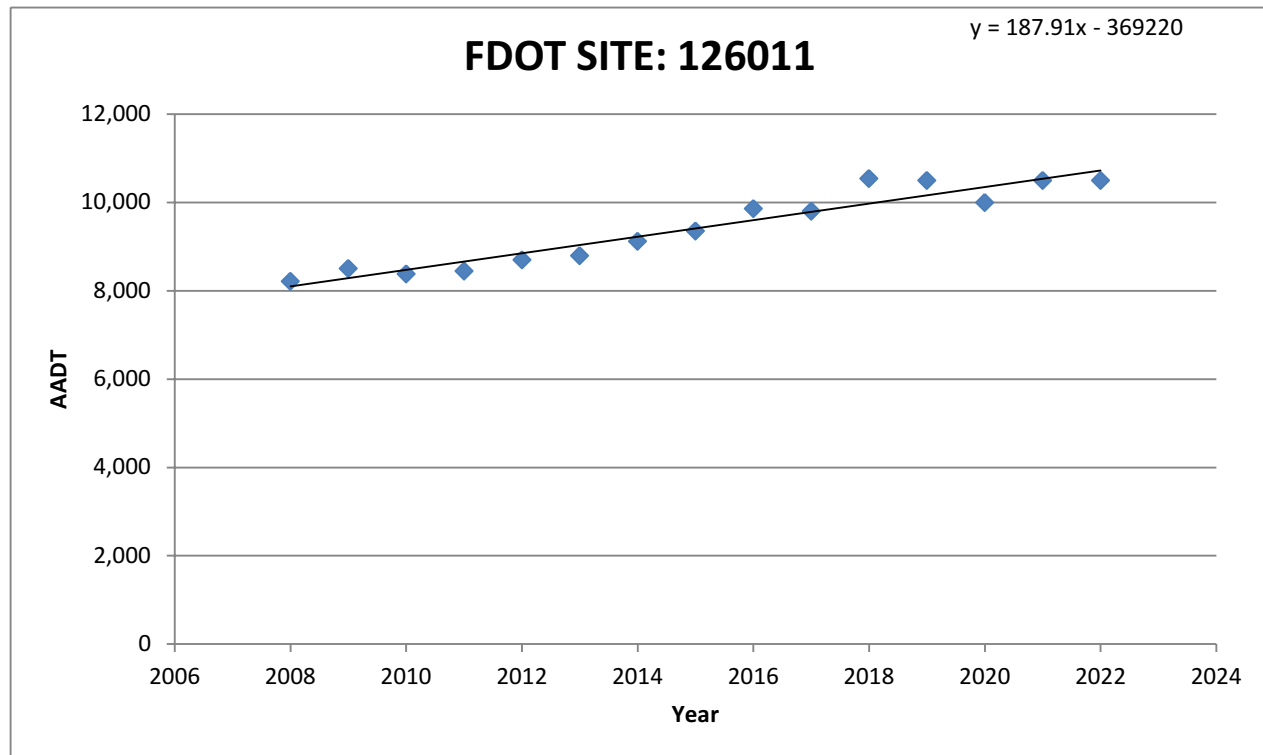


Footnotes:

(1) FDOT Traffic Online (2022 Data)

FDOT SITE: 126011
BUCKINGHAM RD, 0.5 MI S OF SR 80/PALM BEACH BLVD, PTMS 2011, LCPR 11

Year		Equation	Growth
2022	10,500	y_1	1.8% per year
2021	10,500	x_1	
2020	10,000	10,728	2022
2019	10,500	y_2	
2018	10,538	x_2	2026
2017	9,800	11,480	
2016	9,856		
2015	9,348		
2014	9,120		
2013	8,793		
2012	8,700		
2011	8,444		
2010	8,378		
2009	8,500		
2008	8,212		



Footnotes:

(1) FDOT Traffic Online (2022 Data)



2023 MULTIMODAL QUALITY/ LEVEL OF SERVICE HANDBOOK

State of Florida
Department of Transportation
Systems Implementation Office
605 Suwannee St. MS 19
Tallahassee, FL 32399

www.fdot.gov/planning
January 2023

Limited Access

Freeway Generalized Service Volume Tables

Peak Hour Directional

	B	C	D	E
2 Lane	2,400	3,170	3,970	4,150
3 Lane	3,390	4,600	5,810	6,130
4 Lane	4,340	6,060	7,700	8,170
5 Lane	5,480	7,450	9,680	10,390
6 Lane	6,630	9,220	11,520	12,760

Peak Hour Two-Way

	B	C	D	E
4 Lane	4,360	5,760	7,220	7,550
6 Lane	6,160	8,360	10,560	11,150
8 Lane	7,890	11,020	14,000	14,850
10 Lane	9,960	13,550	17,600	18,890
12 Lane	12,050	16,760	20,950	23,200

AADT

	B	C	D	E
4 Lane	51,300	67,800	84,900	88,800
6 Lane	72,500	98,400	124,200	131,200
8 Lane	92,800	129,600	164,700	174,700
10 Lane	117,200	159,400	207,100	222,200
12 Lane	141,800	197,200	246,500	272,900

(Core
Urbanized)

	B	C	D	E
2 Lane	2,500	3,300	4,070	4,240
3 Lane	3,570	4,900	6,080	6,360
4 Lane	4,720	6,500	8,090	8,490
5 Lane	5,790	8,020	10,020	10,610

	B	C	D	E
4 Lane	4,550	6,000	7,400	7,710
6 Lane	6,490	8,910	11,050	11,560
8 Lane	8,580	11,820	14,710	15,440
10 Lane	10,530	14,580	18,220	19,290

	B	C	D	E
4 Lane	50,600	66,700	82,200	85,700
6 Lane	72,100	99,000	122,800	128,400
8 Lane	95,300	131,300	163,400	171,600
10 Lane	117,000	162,000	202,400	214,300

(Urbanized)

	B	C	D	E
2 Lane	2,430	3,180	3,790	3,910
3 Lane	3,520	4,670	5,610	5,870
4 Lane	4,630	6,170	7,440	7,830
5 Lane	5,690	7,640	9,220	9,800

	B	C	D	E
4 Lane	4,420	5,780	6,890	7,110
6 Lane	6,400	8,490	10,200	10,670
8 Lane	8,420	11,220	13,530	14,240
10 Lane	10,350	13,890	16,760	17,820

	B	C	D	E
4 Lane	45,100	59,000	70,300	72,600
6 Lane	65,300	86,600	104,100	108,900
8 Lane	85,900	114,500	138,100	145,300
10 Lane	105,600	141,700	171,000	181,800

(Transitioning)

	B	C	D	E
2 Lane	2,010	2,770	3,270	3,650
3 Lane	2,820	3,990	4,770	5,470
4 Lane	3,630	5,220	6,260	7,300

	B	C	D	E
4 Lane	3,650	5,040	5,950	6,640
6 Lane	5,130	7,250	8,670	9,950
8 Lane	6,600	9,490	11,380	13,270

	B	C	D	E
4 Lane	34,800	48,000	56,700	63,200
6 Lane	48,900	69,000	82,600	94,800
8 Lane	62,900	90,400	108,400	126,400

(Rural)

Adjustment Factors

Auxiliary Lanes Present in Analysis Direction Adjustment: +1,000
Ramp Metering Present Adjustment: Multiply by 1.05

Auxiliary Lanes Present in Analysis Direction Adjustment: +1,800
Ramp Metering Present Adjustment: Multiply by 1.05

Auxiliary Lanes Present in Analysis Direction Adjustment: +20,000
Ramp Metering Present Adjustment: Multiply by 1.05

This table does not constitute a standard and should be used only for general planning applications. The table should not be used for corridor or intersection design, where more refined techniques exist.

Limited Access

Freeway Generalized Service Volume Tables

Input Parameters

Roadway Characteristics

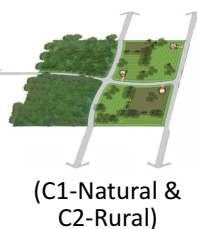
	Core Urbanized	Urbanized	Transitioning	Rural
Number of Lanes (one direction)	2-6	2.5	2-5	2-4
Posted Speed (mph)	65	70	70	70
Auxiliary Lanes	No	No	No	No
Lane Width (feet)	12	12	12	12
Total Ramp Density (ramps/mile)	1.33	2.67	0.50	0.17
Facility Length (miles)	3	3	6	18
Terrain	Level	Level	Level	Level

Traffic Characteristics

	Core Urbanized	Urbanized	Transitioning	Rural
Planning Analysis Hour Factor (K)	0.085	0.090	0.098	0.105
Directional Distribution Factor (D)	0.55	0.55	0.55	0.55
Peak Hour Factor (PHF)	0.95	0.95	0.92	0.88
Base Free Flow Speed (mph)	70	75	75	75
Heavy Vehicle Percent (%)	4%	4%	9%	12%
Speed Adjustment Factor (SAF)	0.975	0.975	0.975	0.975
Capacity Adjustment Factor (CAF)	0.968	0.968	0.968	0.968

C1 & C2

Motor Vehicle Highway Generalized Service Volume Tables



Peak Hour Directional

	B	C	D	E
1 Lane	240	430	730	1,490
2 Lane	1,670	2,390	2,910	3,340
3 Lane	2,510	3,570	4,370	5,010

Peak Hour Two-Way

	B	C	D	E
2 Lane	440	780	1,330	2,710
4 Lane	3,040	4,350	5,290	6,070
6 Lane	4,560	6,490	7,950	9,110

AADT

	B	C	D	E
2 Lane	4,600	8,200	14,000	28,500
4 Lane	32,000	45,800	55,700	63,900
6 Lane	48,000	68,300	83,700	95,900

Adjustment Factors

2 Lane Divided Roadway with Exclusive Left Turn Adjustment: Multiply by 1.05
 Multilane Undivided Highway with Exclusive Left Turn Adjustment: Multiply by 0.95
 Multilane Undivided Highway without Exclusive Left Turn Adjustment:: Multiply by 0.75

This table does not constitute a standard and should be used only for general planning applications. The table should not be used for corridor or intersection design, where more refined techniques exist.

C1 & C2

Motor Vehicle Highway Generalized Service Volume Tables

Input Parameters

Roadway Characteristics

	C1	C2
Number of Lanes (one direction)	1	2-3
Posted Speed (mph)	55	55
Base Free Flow Speed (mph)	60	60
Median Type	Undivided	Divided
Shoulder Width (feet)	3	6
Lane Width (feet)	12	12
% No Passing Zone	20%	
Access-Point Density (access/mile)	2	2
Terrain	Level	Level

Traffic Characteristics

	C1	C2
Planning Analysis Hour Factor (K)	0.095	0.095
Directional Distribution Factor (D)	0.55	0.55
Peak Hour Factor (PHF)	0.88	0.88
Heavy Vehicle Percent (%)	5%	10%
Speed Adjustment Factor (SAF)	0.975	0.975
Capacity Adjustment Factor (CAF)	0.968	0.968

C3C & C3R

Motor Vehicle Arterial Generalized Service Volume Tables

Peak Hour Directional



	B	C	D	E
1 Lane	*	760	1,070	**
2 Lane	*	1,520	1,810	**
3 Lane	*	2,360	2,680	**
4 Lane	*	3,170	3,180	**

(C3C-Suburban Commercial)

Peak Hour Two-Way

	B	C	D	E
2 Lane	*	1,380	1,950	**
4 Lane	*	2,760	3,290	**
6 Lane	*	4,290	4,870	**
8 Lane	*	5,760	5,780	**

AADT

	B	C	D	E
2 Lane	*	15,300	21,700	**
4 Lane	*	30,700	36,600	**
6 Lane	*	47,700	54,100	**
8 Lane	*	64,000	64,200	**



	B	C	D	E
1 Lane	*	970	1,110	**
2 Lane	*	1,700	1,850	**
3 Lane	*	2,620	2,730	**

(C3R-Suburban Residential)

	B	C	D	E
2 Lane	*	1,760	2,020	**
4 Lane	*	3,090	3,360	**
6 Lane	*	4,760	4,960	**

	B	C	D	E
2 Lane	*	19,600	22,400	**
4 Lane	*	34,300	37,300	**
6 Lane	*	52,900	55,100	**

Adjustment Factors

The peak hour directional service volumes should be adjusted by multiplying by 1.2 for one-way facilities
 The AADT service volumes should be adjusted by multiplying 0.6 for one way facilities 2 Lane Divided
 Roadway with an Exclusive Left Turn Lane(s): Multiply by 1.05
 2 lane Undivided Roadway with No Exclusive Left Turn Lane(s): Multiply by 0.80

Exclusive right turn lane(s): Multiply by 1.05
 Multilane Undivided Roadway with an Exclusive Left Turn Lane(s): Multiply by 0.95
 Multilane Roadway with No Exclusive Left Turn Lane(s): Multiply by 0.75
 Non-State Signalized Roadway: Multiply by 0.90

This table does not constitute a standard and should be used only for general planning applications. The table should not be used for corridor or intersection design, where more refined techniques exist.

* 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.

C3C & C3R

Motor Vehicle Arterial Generalized Service Volume Tables

Input Parameters

Roadway Characteristics

	C3C	C3R
Number of Lanes (one direction)	1-4	1-3
Posted Speed (mph)	45	45
Facility Length (miles)	3.98	2.57

Traffic Characteristics

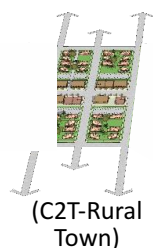
	C3C		C3R	
Planning Analysis Hour Factor (K)	0.09		0.09	
Directional Distribution Factor (D)	0.55		0.55	
Peak Hour Factor (PHF)	0.95		0.92	
Base Saturation Flow Rate	1,950		1,950	
Heavy Vehicle Percent (%)	4		4	
Lane Width	12		12	
Median Type	Non Restrictive (1 lane)	Restrictive (2,3,4 lanes)	Non Restrictive (1 lane)	Restrictive (2,3 lanes)
Roadway Edge Type	Curbed		Flush	
On-Street Parking	None		None	

Control Characteristics

	C3C		C3R
Cycle Length	160		190
Major Street Through g/c	0.5 (1,2,3 lanes)	0.45 (4 lanes)	0.5
Yellow Change Interval	5.1		5.1
Red Change Interval	2		2
Number of Signals	10		5

C2T, C4, C5, & C6

Motor Vehicle Arterial Generalized Service Volume Tables



Peak Hour Directional

	B	C	D	E
1 Lane	*	720	940	**
2 Lane	*	1,140	1,640	**
3 Lane	*	2,120	2,510	**

Peak Hour Two-Way

	B	C	D	E
2 Lane	*	1,310	1,710	**
4 Lane	*	2,070	2,980	**
6 Lane	*	3,850	4,560	**

AADT

	B	C	D	E
2 Lane	*	13,800	18,000	**
4 Lane	*	21,800	31,400	**
6 Lane	*	40,500	48,000	**



	B	C	D	E
1 Lane	*	*	870	1,190
2 Lane	*	1,210	1,790	2,020
3 Lane	*	2,210	2,810	2,990
4 Lane	*	2,590	3,310	3,510

	B	C	D	E
2 Lane	*	*	1,580	2,160
4 Lane	*	2,200	3,250	3,670
6 Lane	*	4,020	5,110	5,440
8 Lane	*	4,710	6,020	6,380

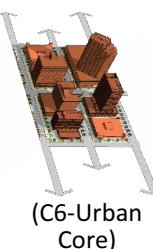
	B	C	D	E
2 Lane	*	*	17,600	24,000
4 Lane	*	24,400	36,100	40,800
6 Lane	*	44,700	56,800	60,400
8 Lane	*	52,300	66,900	70,900



	B	C	D	E
1 Lane	*	*	690	1,080
2 Lane	*	1,290	1,900	2,130
3 Lane	*	1,410	2,670	3,110
4 Lane	*	2,910	3,560	3,640

	B	C	D	E
2 Lane	*	*	1,250	1,960
4 Lane	*	2,350	3,450	3,870
6 Lane	*	2,560	4,850	5,650
8 Lane	*	5,290	6,470	6,620

	B	C	D	E
2 Lane	*	*	13,900	21,800
4 Lane	*	26,100	38,300	43,000
6 Lane	*	28,400	53,900	62,800
8 Lane	*	58,800	71,900	73,600



	B	C	D	E
1 Lane	*	***	790	1,030
2 Lane	*	***	1,490	1,920
3 Lane	*	***	2,730	2,940
4 Lane	*	***	3,250	3,490

	B	C	D	E
2 Lane	*	***	1,440	1,870
4 Lane	*	***	2,710	3,490
6 Lane	*	***	4,960	5,350
8 Lane	*	***	5,910	6,350

	B	C	D	E
2 Lane	*	***	16,000	20,800
4 Lane	*	***	30,100	38,800
6 Lane	*	***	55,100	59,400
8 Lane	*	***	65,700	70,600

Adjustment Factors

The peak hour directional service volumes should be adjusted by multiplying by 1.2 for one-way facilities
 The AADT service volumes should be adjusted by multiplying 0.6 for one way facilities
 2 Lane Divided Roadway with an Exclusive Left Turn Lane(s): Multiply by 1.05
 2 lane Undivided Roadway with No Exclusive Left Turn Lane(s): Multiply by 0.80

Exclusive right turn lane(s): Multiply by 1.05
 Multilane Undivided Roadway with an Exclusive Left Turn Lane(s): Multiply by 0.95
 Multilane Roadway with No Exclusive Left Turn Lane(s): Multiply by 0.75
 Non-State Signalized Roadway: Multiply by 0.90

This table does not constitute a standard and should be used only for general planning applications. The table should not be used for corridor or intersection design, where more refined techniques exist.

*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.

***LOS C thresholds are not applicable for C6 as C6 roadway facilities are neither planned nor designed to achieve automobile LOS C.

C2T, C4, C5, & C6

Motor Vehicle Arterial Generalized Service Volume Tables

Input Parameters

Roadway Characteristics

	C2T	C4	C5	C6
Number of Lanes (one direction)	1-3	1-4	1-4	1-4
Posted Speed (mph)	40	45	35	30
Facility Length (miles)	0.78	1.83	1.18	0.74
Number of Signals	4	9	9	7

Traffic Characteristics

	C2T	C4	C5	C6
Planning Analysis Hour Factor (K)	0.095	0.09	0.09	0.09
Directional Distribution Factor (D)	0.55	0.55	0.55	0.55
Peak Hour Factor (PHF)	0.92	0.95	0.95	0.95
Base Saturation Flow Rate	1,700	1,950	1,950	1,950
Heavy Vehicle Percent (%)	5	3	2	2
Lane Width	11	11	10	10
Median Type	Non Restrictive	Non Restrictive	Non Restrictive	Non Restrictive
Roadway Edge Type	Curb	Curb	Curb	Curb
On-Street Parking	50%	100%	100%	100%

Signal Characteristics

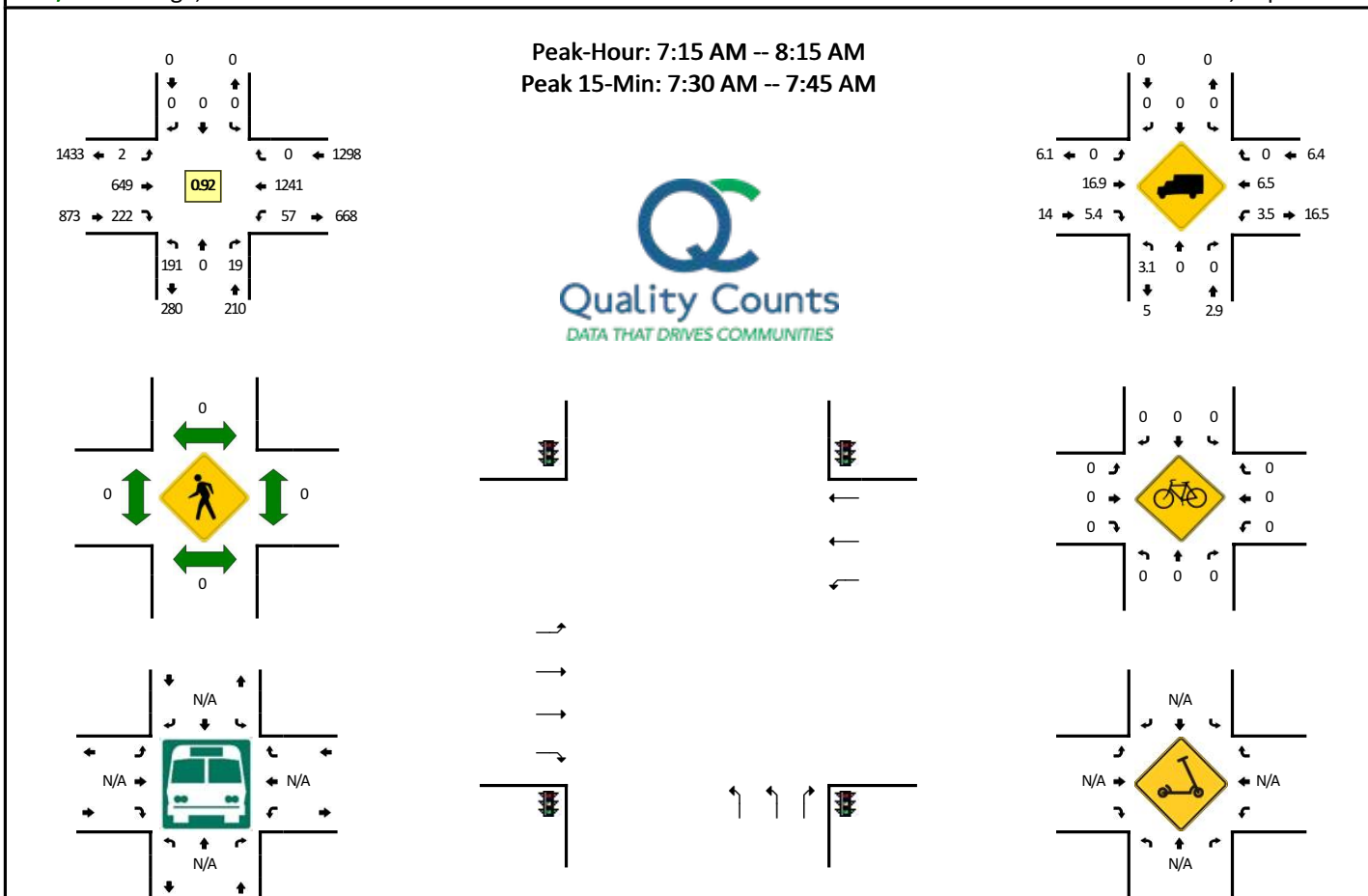
	C2T	C4	C5	C6
Cycle Length	90	170	150	120
Major Street Through g/c	0.47	0.52 (1,2,3 lanes) 0.47 (4 lanes)	0.55 (1,2,3 lanes) 0.48 (4 lanes)	0.52 (1,2,3 lanes) 0.46 (4 lanes)
Yellow Change Interval	4.4	4.8	4	3.7
Red Change Interval	2	2	2	2

APPENDIX D

INTERSECTION TURNING MOVEMENT COUNTS

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: River Hall Pkwy -- Palm Beach Blvd**QC JOB #:** 15565301**CITY/STATE:** Olga, FL**DATE:** Wed, Sep 15 2021

R* = RTOR

15-Min Count Period Beginning At	River Hall Pkwy (Northbound)					River Hall Pkwy (Southbound)					Palm Beach Blvd (Eastbound)					Palm Beach Blvd (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	43	0	2	0	6	0	0	0	0	0	0	163	28	2	7	10	274	0	0	0	535	
7:15 AM	44	0	1	0	5	0	0	0	0	0	0	179	34	0	10	10	310	0	0	0	593	
7:30 AM	52	0	2	0	4	0	0	0	0	0	0	194	49	0	20	10	319	0	0	0	650	
7:45 AM	40	0	0	0	6	0	0	0	0	0	0	141	34	2	11	14	314	0	0	0	562	2340
8:00 AM	54	0	0	1	1	0	0	0	0	0	0	135	34	0	30	23	298	0	0	0	576	2381
8:15 AM	57	0	1	0	7	0	0	0	0	0	0	176	59	1	28	18	226	0	1	0	574	2362
8:30 AM	143	0	9	0	16	0	0	0	0	0	0	166	66	0	49	27	175	0	0	0	651	2363
8:45 AM	141	0	5	0	7	0	0	0	0	0	0	131	31	1	26	12	198	0	0	0	552	2353
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	208	0	24	0	16	0	0	0	0	0	0	776	276	0	80	40	1276	0	0	0	2696	
Heavy Trucks	16	0	0			0	0	0			0	104	16			0	104	0			240	
Buses																						
Pedestrians		0					0					0					0				0	
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0	
Scooters																						

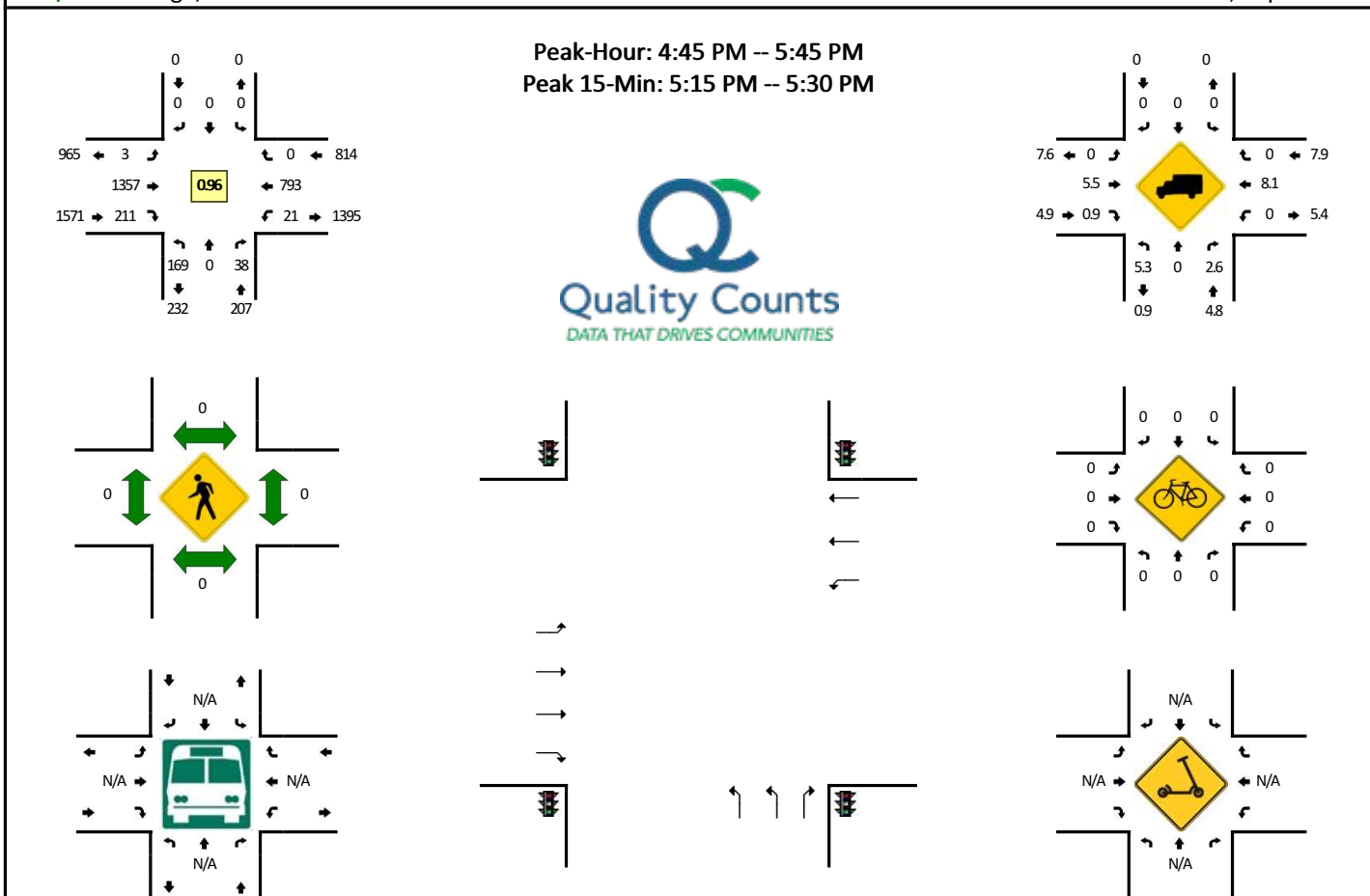
Comments:

Report generated on 9/21/2021 9:27 AM

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: River Hall Pkwy -- Palm Beach Blvd**QC JOB #:** 15565302**CITY/STATE:** Olga, FL**DATE:** Wed, Sep 15 2021

R* = RTOR

15-Min Count Period Beginning At	River Hall Pkwy (Northbound)					River Hall Pkwy (Southbound)					Palm Beach Blvd (Eastbound)					Palm Beach Blvd (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	51	0	1	0	6	0	0	0	0	0	0	292	42	0	9	10	170	0	0	0	581	
4:15 PM	54	0	5	0	7	0	0	0	0	0	0	265	46	0	11	11	186	0	0	0	585	
4:30 PM	45	0	0	0	6	0	0	0	0	0	0	298	41	0	7	6	214	0	1	0	618	
4:45 PM	41	0	7	0	7	0	0	0	0	0	0	341	39	2	10	7	188	0	0	0	642	2426
5:00 PM	54	0	1	0	6	0	0	0	0	0	0	302	50	1	5	8	205	0	0	0	632	2477
5:15 PM	37	0	1	0	10	0	0	0	0	0	0	365	37	0	12	2	214	0	0	0	678	2570
5:30 PM	37	0	2	0	4	0	0	0	0	0	0	349	54	0	4	4	186	0	0	0	640	2592
5:45 PM	34	0	2	1	3	0	0	0	0	0	0	309	36	3	8	14	178	0	0	0	588	2538
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	148	0	44	0	40	0	0	0	0	0	0	1460	196	0	48	8	856	0	0	0	2800	
Heavy Trucks	4	0	0			0	0	0			0	52	0			0	40	0			96	
Buses																						
Pedestrians		0					0					0					0				0	
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0	
Scoters																						

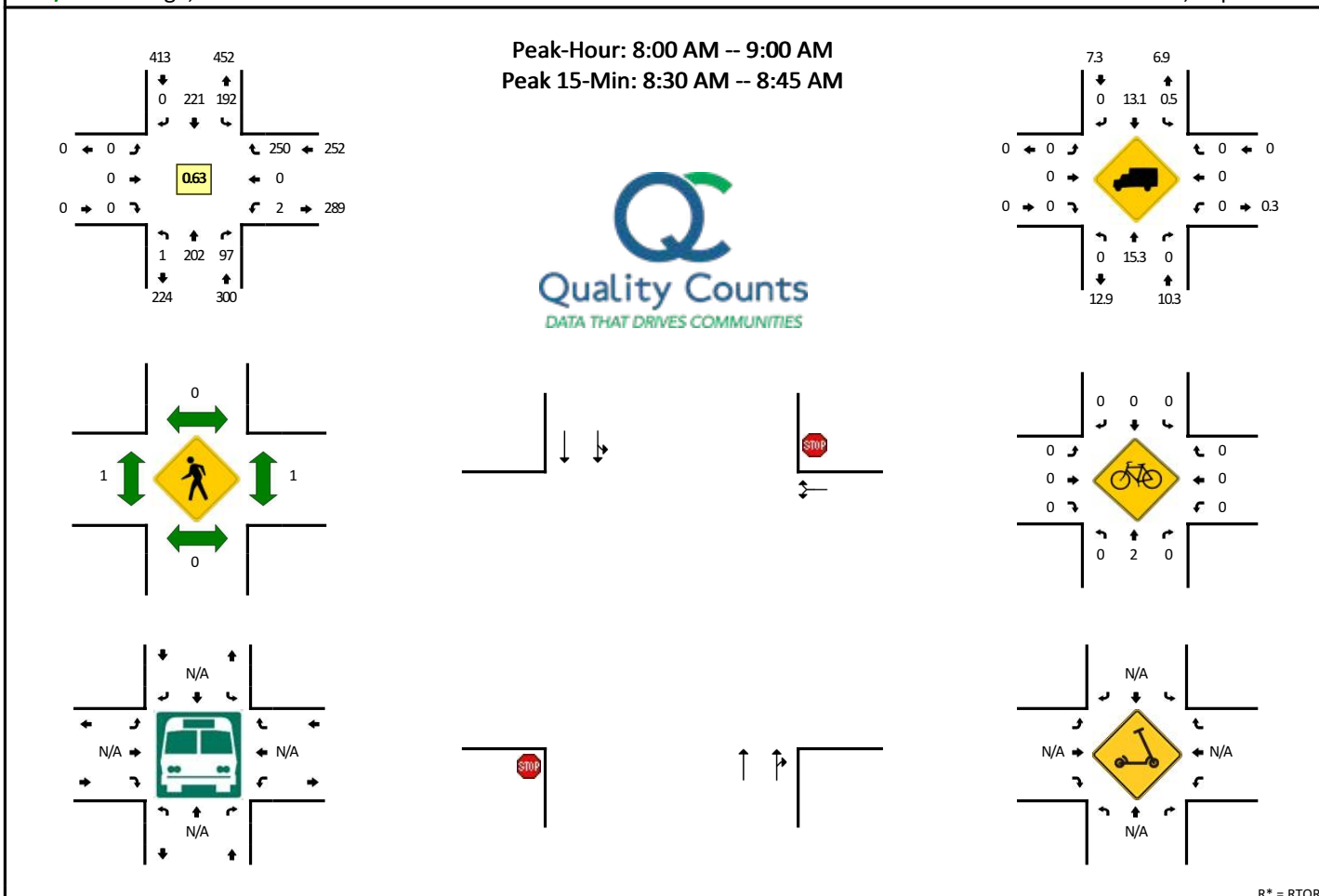
Comments:

Report generated on 9/21/2021 9:27 AM

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: River Hall Pkwy -- W Elementary School Dwy**QC JOB #:** 15565303**CITY/STATE:** Olga, FL**DATE:** Wed, Sep 15 2021

R* = RTOR

15-Min Count Period Beginning At	River Hall Pkwy (Northbound)					River Hall Pkwy (Southbound)					W Elementary School Dwy (Eastbound)					W Elementary School Dwy (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	36	0	0	0	17	28	0	0	0	0	0	0	0	0	0	0	10	0	0	91	
7:15 AM	0	41	2	0	0	15	37	0	0	0	0	0	0	0	0	1	0	10	0	0	106	
7:30 AM	0	42	1	0	0	37	42	0	0	0	0	0	0	0	0	0	0	9	0	0	131	
7:45 AM	0	38	3	0	0	30	30	0	0	0	0	0	0	0	0	0	0	9	0	0	110	438
8:00 AM	0	53	8	0	0	55	30	0	0	0	0	0	0	0	0	1	0	6	0	0	153	500
8:15 AM	0	46	20	1	0	40	66	0	0	0	0	0	0	0	0	0	0	43	0	0	216	610
8:30 AM	0	58	65	0	0	50	86	0	0	0	0	0	0	0	0	0	0	124	0	0	383	862
8:45 AM	0	45	4	0	0	47	39	0	0	0	0	0	0	0	0	1	0	77	0	0	213	965
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	232	260	0	0	200	344	0	0	0	0	0	0	0	0	0	0	496	0	0	1532	
Heavy Trucks	0	52	0			0	52	0			0	0	0			0	0	0			104	
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 9/21/2021 9:27 AM

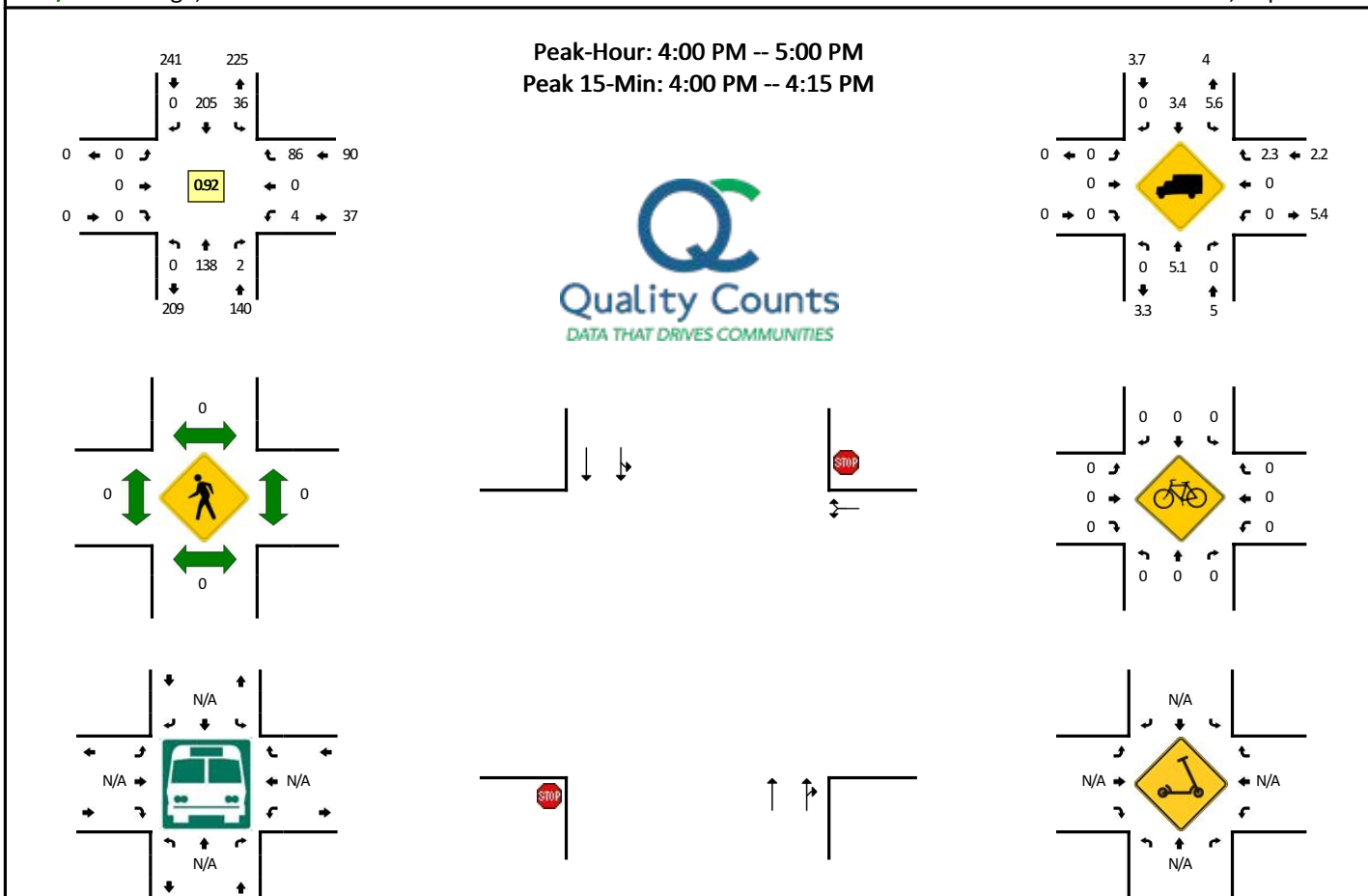
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: River Hall Pkwy -- W Elementary School Dwy
CITY/STATE: Olga, FL

QC JOB #: 15565304
DATE: Wed, Sep 15 2021



R* = RTOR

15-Min Count Period Beginning At	River Hall Pkwy (Northbound)					River Hall Pkwy (Southbound)					W Elementary School Dwy (Eastbound)					W Elementary School Dwy (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	32	1	0	0	7	55	0	0	0	0	0	0	0	0	1	0	32	0	0	128	
4:15 PM	0	28	1	0	0	10	54	0	0	0	0	0	0	0	0	1	0	25	0	0	119	
4:30 PM	0	39	0	0	0	10	44	0	1	0	0	0	0	0	0	1	0	14	0	0	109	
4:45 PM	0	39	0	0	0	8	52	0	0	0	0	0	0	0	0	1	0	15	0	0	115	471
5:00 PM	0	46	1	0	0	14	44	0	0	0	0	0	0	0	0	0	0	12	0	0	117	460
5:15 PM	0	31	1	0	0	11	39	0	0	0	0	0	0	0	0	1	0	17	0	0	100	441
5:30 PM	0	23	0	0	0	10	52	0	1	0	0	0	0	0	0	1	0	13	0	0	100	432
5:45 PM	0	30	0	0	0	8	57	0	0	0	0	0	0	0	0	1	0	14	0	0	110	427
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	128	4	0	0	28	220	0	0	0	0	0	0	0	0	4	0	128	0	0	512	
Heavy Trucks	0	12	0			4	8	0			0	0	0			0	0	0			24	
Buses																						
Pedestrians		0					0					0					0					
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0	
Scooters																						

Comments:

Report generated on 9/21/2021 9:27 AM

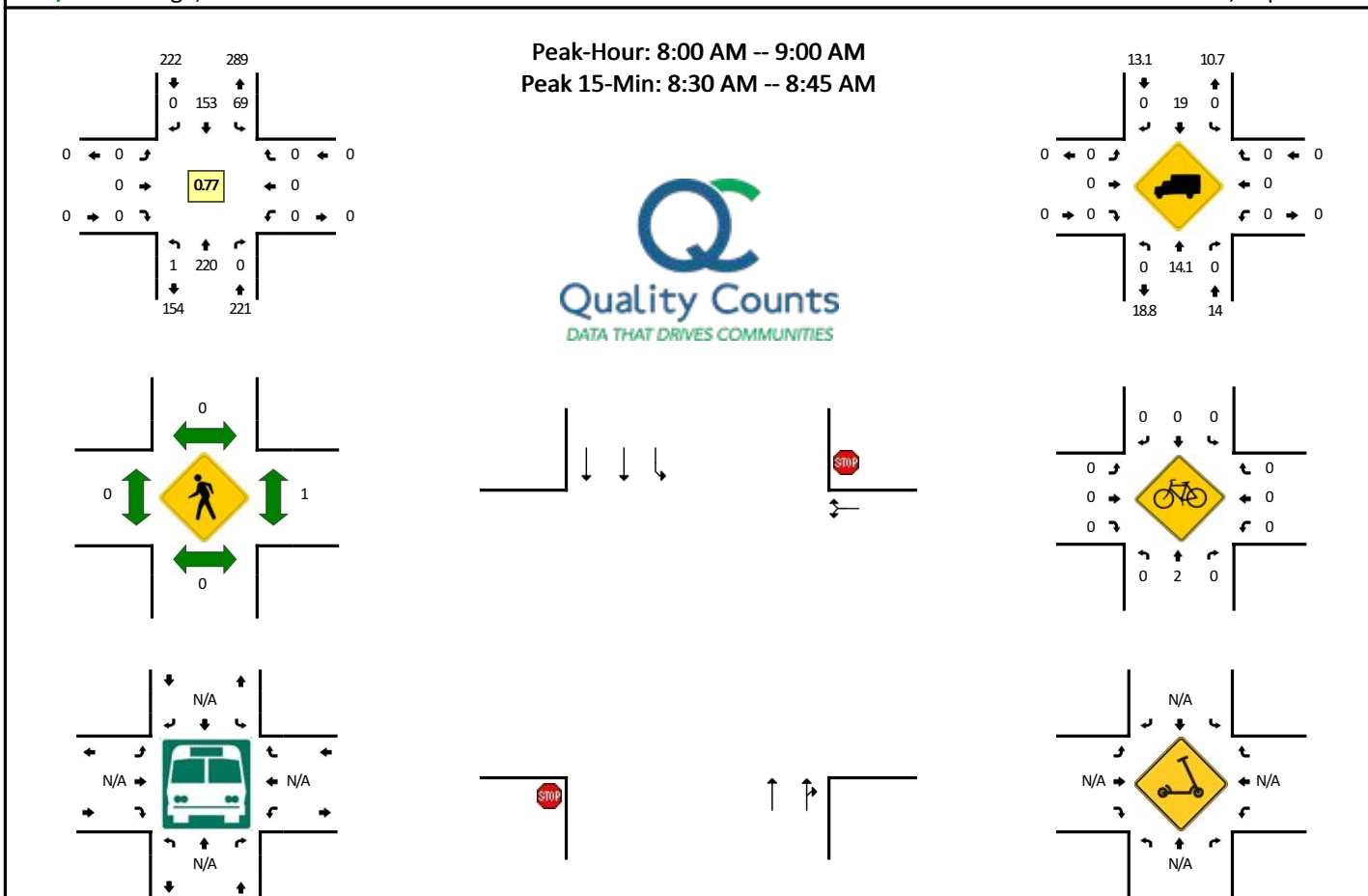
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: River Hall Pkwy -- Center Elementary School Dwy
CITY/STATE: Olga, FL

QC JOB #: 15565305
DATE: Wed, Sep 15 2021



R* = RTOR

15-Min Count Period Beginning At	River Hall Pkwy (Northbound)					River Hall Pkwy (Southbound)					Center Elementary School Dwy (Eastbound)					Center Elementary School Dwy (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	36	0	0	0	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0	64	
7:15 AM	0	43	0	0	0	0	35	0	0	0	0	0	0	0	0	0	0	0	0	0	78	
7:30 AM	0	43	0	0	0	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	85	
7:45 AM	0	40	0	0	0	0	28	0	1	0	0	0	0	0	0	0	0	0	0	0	69	296
8:00 AM	0	61	0	0	0	0	29	0	1	0	0	0	0	0	0	0	0	0	0	0	91	323
8:15 AM	0	51	0	0	0	0	44	0	24	0	0	0	0	0	0	0	0	0	0	0	119	364
8:30 AM	0	61	0	0	0	0	40	0	43	0	0	0	0	0	0	0	0	0	0	0	144	423
8:45 AM	0	47	0	1	0	0	40	0	1	0	0	0	0	0	0	0	0	0	0	0	89	443
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	244	0	0	0	0	160	0	172	0	0	0	0	0	0	0	0	0	0	0	576	
Heavy Trucks	0	52	0			0	48	0			0	0	0			0	0	0			100	
Buses																					0	
Pedestrians	0	0	0			0	0	0			0	0	0			0	0	0			0	
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0	
Scoters																						

Comments:

Report generated on 9/21/2021 9:27 AM

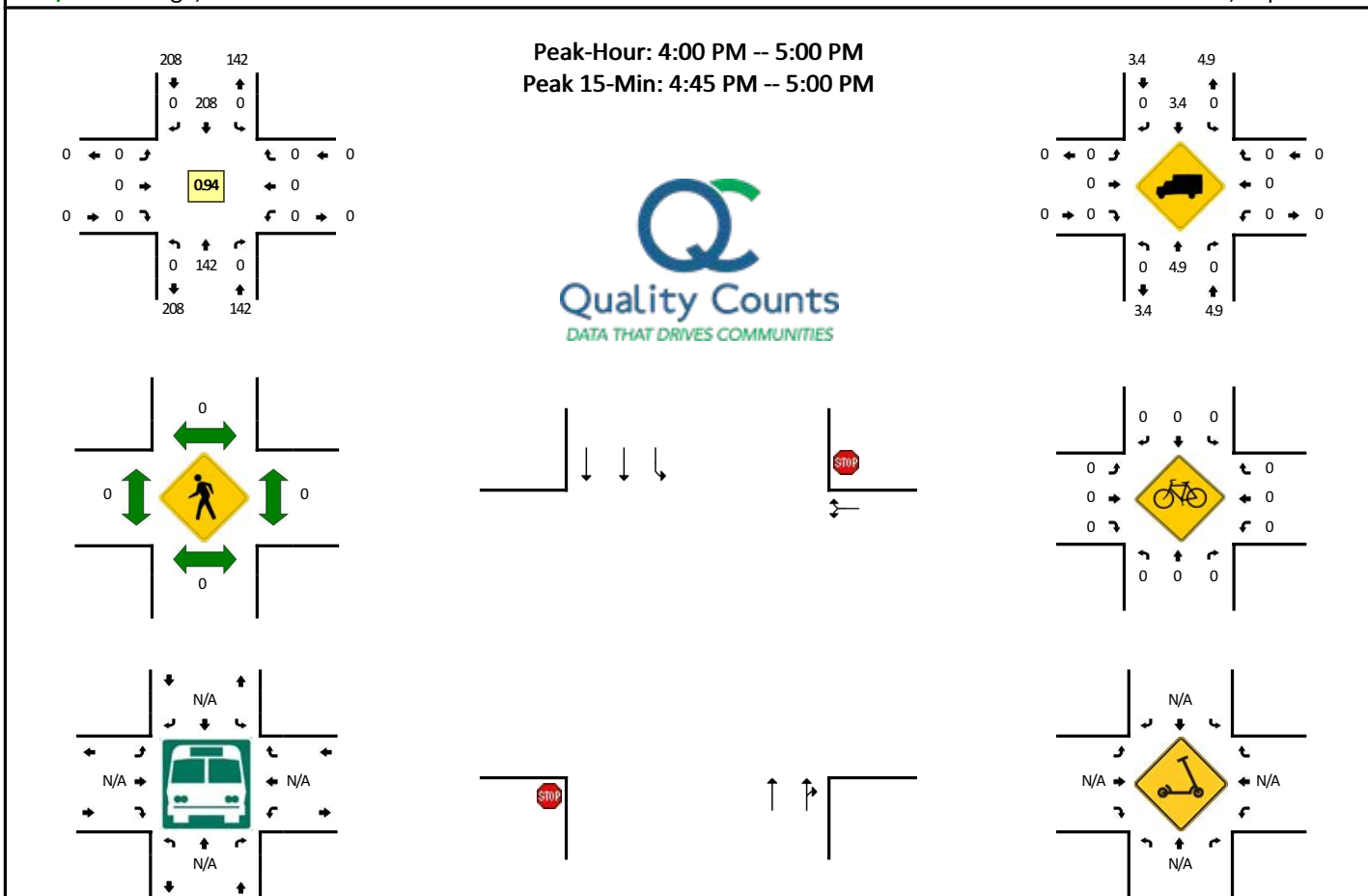
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: River Hall Pkwy -- Center Elementary School Dwy
CITY/STATE: Olga, FL

QC JOB #: 15565306
DATE: Wed, Sep 15 2021



R* = RTOR

15-Min Count Period Beginning At	River Hall Pkwy (Northbound)					River Hall Pkwy (Southbound)					Center Elementary School Dwy (Eastbound)					Center Elementary School Dwy (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	33	0	0	0	0	56	0	0	0	0	0	0	0	0	0	0	0	0	0	89	
4:15 PM	0	30	0	0	0	0	55	0	0	0	0	0	0	0	0	0	0	0	0	0	85	
4:30 PM	0	38	0	0	0	0	45	0	0	0	0	0	0	0	0	0	0	0	0	0	83	
4:45 PM	0	41	0	0	0	0	52	0	0	0	0	0	0	0	0	0	0	0	0	0	93	350
5:00 PM	0	45	0	0	0	0	43	0	0	0	0	0	0	0	0	0	0	0	0	0	88	349
5:15 PM	0	32	0	0	0	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	74	338
5:30 PM	0	24	0	0	0	0	52	0	0	0	0	0	0	0	0	0	0	0	0	0	76	331
5:45 PM	0	29	0	0	0	0	58	0	0	0	0	0	0	0	0	0	0	0	0	0	87	325
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	164	0	0	0	0	208	0	0	0	0	0	0	0	0	0	0	0	0	0	372	
Heavy Trucks	0	12	0			0	0	0			0	0	0			0	0	0			12	
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 9/21/2021 9:27 AM

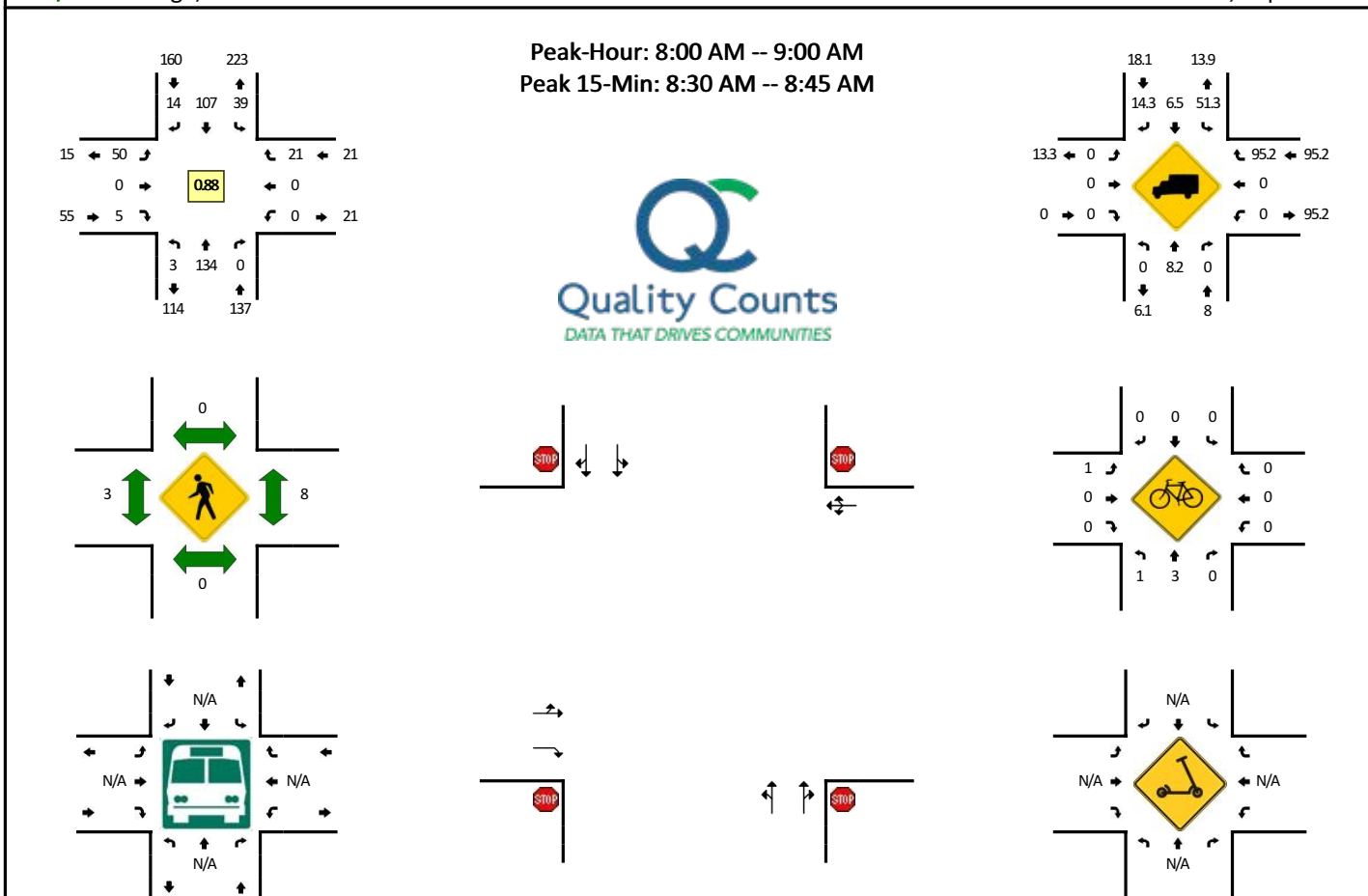
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: River Hall Pkwy -- Paradise Palm Blvd/E Elementary School Dwy
CITY/STATE: Olga, FL

QC JOB #: 15565307
DATE: Wed, Sep 15 2021



R* = RTOR

15-Min Count Period Beginning At	River Hall Pkwy (Northbound)					River Hall Pkwy (Southbound)					Paradise Palm Blvd/E Elementary School Dwy (Eastbound)					Paradise Palm Blvd/E Elementary School Dwy (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	32	0	0	0	0	26	1	0	0	5	0	0	0	0	0	0	0	0	0	64	
7:15 AM	0	37	0	0	0	0	34	0	0	0	7	0	0	0	0	0	0	0	0	0	78	
7:30 AM	0	30	0	0	0	0	40	3	0	0	11	0	1	0	0	0	0	0	0	0	85	
7:45 AM	0	32	0	0	0	0	24	2	0	0	8	0	1	0	0	0	0	0	0	0	67	294
8:00 AM	0	44	0	1	0	2	20	6	2	0	15	0	0	0	0	0	0	1	0	0	91	321
8:15 AM	1	27	0	1	0	6	26	1	12	0	9	0	1	0	0	0	0	3	0	0	87	330
8:30 AM	0	38	0	0	0	11	29	3	4	0	11	0	2	0	0	0	0	8	0	0	106	351
8:45 AM	0	25	0	0	0	2	32	4	0	0	15	0	2	0	0	0	0	9	0	0	89	373
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	152	0	0	0	44	116	12	16	0	44	0	8	0	0	0	0	32	0	0	424	
Heavy Trucks	0	20	0	0	0	44	4	4	0	0	0	0	0	0	0	0	0	32	0	0	104	
Buses																						
Pedestrians	0					0					4					16					20	
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0	
Scoters																						

Comments:

Report generated on 9/21/2021 9:27 AM

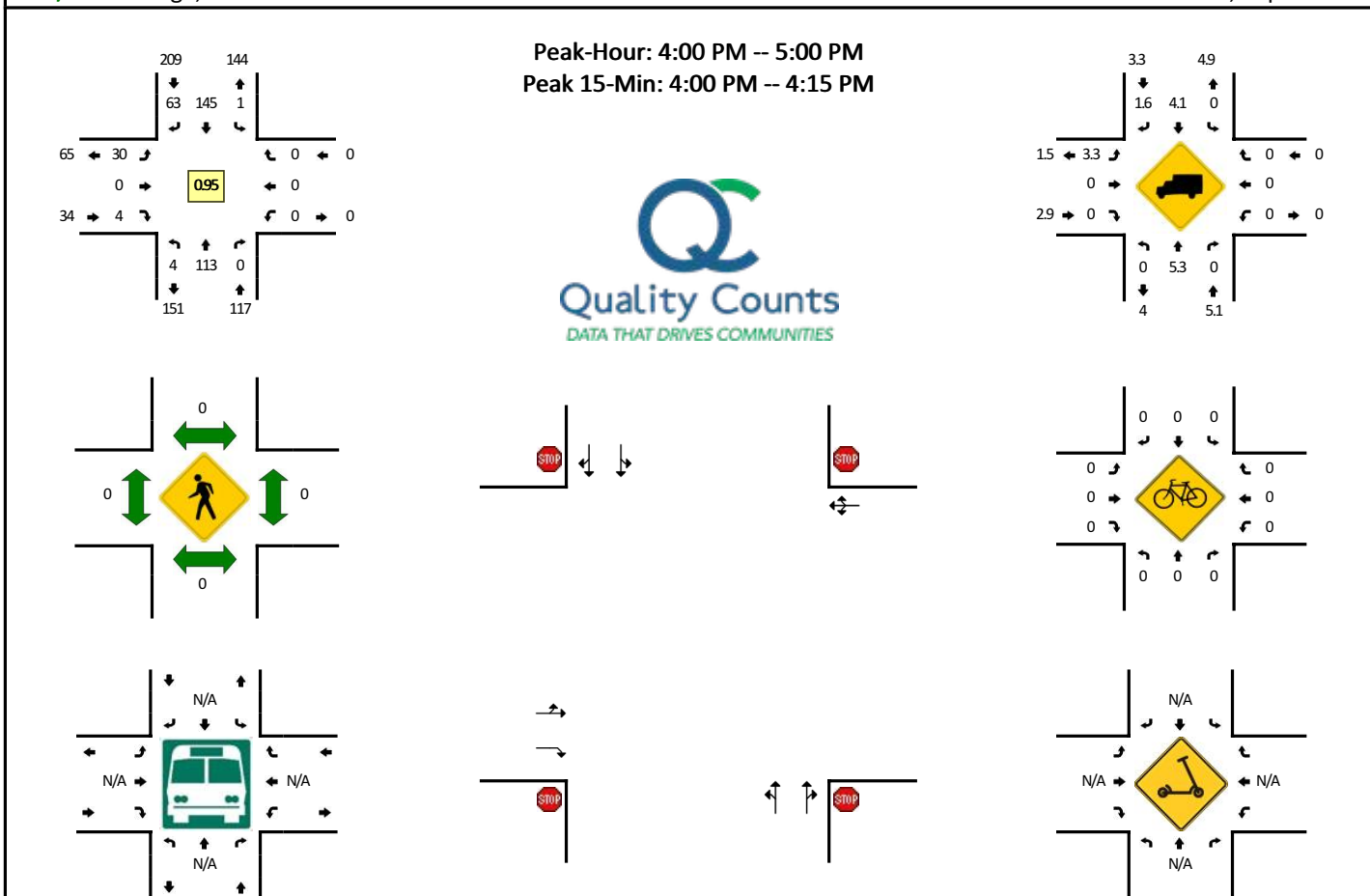
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: River Hall Pkwy -- Paradise Palm Blvd/E Elementary School Dwy
CITY/STATE: Olga, FL

QC JOB #: 15565308
DATE: Wed, Sep 15 2021



R* = RTOR

15-Min Count Period Beginning At	River Hall Pkwy (Northbound)					River Hall Pkwy (Southbound)					Paradise Palm Blvd/E Elementary School Dwy (Eastbound)					Paradise Palm Blvd/E Elementary School Dwy (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	2	27	0	1	0	0	37	20	0	0	8	0	0	0	0	0	0	0	0	0	95	
4:15 PM	0	20	0	0	0	0	35	19	0	0	8	0	0	0	0	0	0	0	0	0	82	
4:30 PM	0	29	0	1	0	0	36	10	0	0	10	0	2	0	0	0	0	0	0	0	88	
4:45 PM	0	37	0	0	0	0	37	14	1	0	4	0	2	0	0	0	0	0	0	0	95	360
5:00 PM	2	34	0	0	0	0	34	8	0	0	9	0	2	0	0	0	0	0	0	0	89	354
5:15 PM	1	28	0	0	0	0	27	12	0	0	4	0	2	0	0	0	0	0	0	0	74	346
5:30 PM	2	17	0	0	0	0	42	13	0	0	7	0	1	0	0	0	0	0	0	0	82	340
5:45 PM	0	22	0	0	0	0	44	13	0	0	7	0	2	0	0	0	0	0	0	0	88	333
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	8	108	0	4	0	0	148	80	0	0	32	0	0	0	0	0	0	0	0	0	380	
Heavy Trucks	0	12	0			0	8	0			0	0	0			0	0	0			20	
Buses																					0	
Pedestrians		0					0					0					0				0	
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0	
Scoters																						

Comments:

Report generated on 9/21/2021 9:27 AM

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

David Plummer & Associates
Based On
MSHA Highway Information Services Division
Turning Counts Study - Field Sheet

Request No.:

Portico

Job No.:

#17545

Location:

Buckingham Road @ SR 80

Date:

2/6/2018

Tuesday

Recorder:

QC

Interval (dd) :

15

(In Minutes)

County:

Lee

Town:

0

Weather:

Good AM / PM

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start 8:00 AM	End 9:00 AM	Volume 2713	PM PERIOD 12:00PM-7:00PM	Start 5:00 PM	End 6:00 PM	Volume 3158
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Street

Name-->

Hour	Buckingham Road Southbound				Buckingham Road Northbound				SR80 Westbound				SR80 Eastbound				GRAND TOTAL
ENDING	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	
7:15 AM	18	24	21	63	90	11	44	145	37	312	1	350	5	147	45	197	755
7:30 AM	14	12	12	38	66	11	42	119	37	341	1	379	2	123	25	150	686
7:45 AM	16	12	17	45	51	4	41	96	45	280	2	327	5	167	26	198	666
8:00 AM	9	13	19	41	74	9	26	109	31	266	2	299	8	118	29	155	604
8:15 AM	12	9	14	35	65	10	43	118	27	274	2	303	4	161	40	205	661
8:30 AM	12	14	21	47	69	9	47	125	33	221	3	257	4	168	40	212	641
8:45 AM	24	8	12	44	65	10	65	140	57	259	3	319	11	171	68	250	753
9:00 AM	15	7	25	47	47	10	37	94	55	231	6	292	12	168	45	225	658
9:15 AM				0				0				0				0	0
9:30 AM				0				0				0				0	0
9:45 AM				0				0				0				0	0
10:00 AM				0				0				0				0	0
10:15 AM				0				0				0				0	0
10:30 AM				0				0				0				0	0
10:45 AM				0				0				0				0	0
11:00 AM				0				0				0				0	0
11:15 AM				0				0				0				0	0
11:30 AM				0				0				0				0	0
11:45 AM				0				0				0				0	0
12:00 PM				0				0				0				0	0
12:15 PM				0				0				0				0	0
12:30 PM				0				0				0				0	0
12:45 PM				0				0				0				0	0
1:00 PM				0				0				0				0	0
1:15 PM				0				0				0				0	0
1:30 PM				0				0				0				0	0
1:45 PM				0				0				0				0	0
2:00 PM				0				0				0				0	0
2:15 PM				0				0				0				0	0
2:30 PM				0				0				0				0	0
2:45 PM				0				0				0				0	0
3:00 PM				0				0				0				0	0
3:15 PM				0				0				0				0	0
3:30 PM				0				0				0				0	0
3:45 PM				0				0				0				0	0
4:00 PM				0				0				0				0	0
4:15 PM	33	26	18	77	70	19	33	122	39	172	4	215	17	293	67	377	791
4:30 PM	13	25	10	48	74	22	34	130	17	232	1	250	20	281	51	352	780
4:45 PM	19	24	21	64	68	21	45	134	41	158	2	201	16	306	46	368	767
5:00 PM	19	21	17	57	51	17	42	110	43	179	6	228	17	303	49	369	764
5:15 PM	24	16	20	60	46	20	47	113	35	151	0	186	25	312	44	381	740
5:30 PM	21	23	19	63	63	17	58	138	33	162	4	199	12	352	42	406	806
5:45 PM	17	13	14	44	59	20	47	126	46	149	3	198	16	386	39	441	809
6:00 PM	27	27	19	73	61	19	38	118	38	146	5	189	20	338	65	423	803
TOTAL	293	274	279	846	1019	229	689	1937	614	3533	45	4192	194	3794	721	4709	11684
AM Peak Vol	63	38	72	173	246	39	192	477	172	985	14	1171	31	668	193	892	2713
PM Peak Vol	89	79	72	240	229	76	190	495	152	608	12	772	73	1388	190	1651	3158

Peak Hour Factor (PHF)

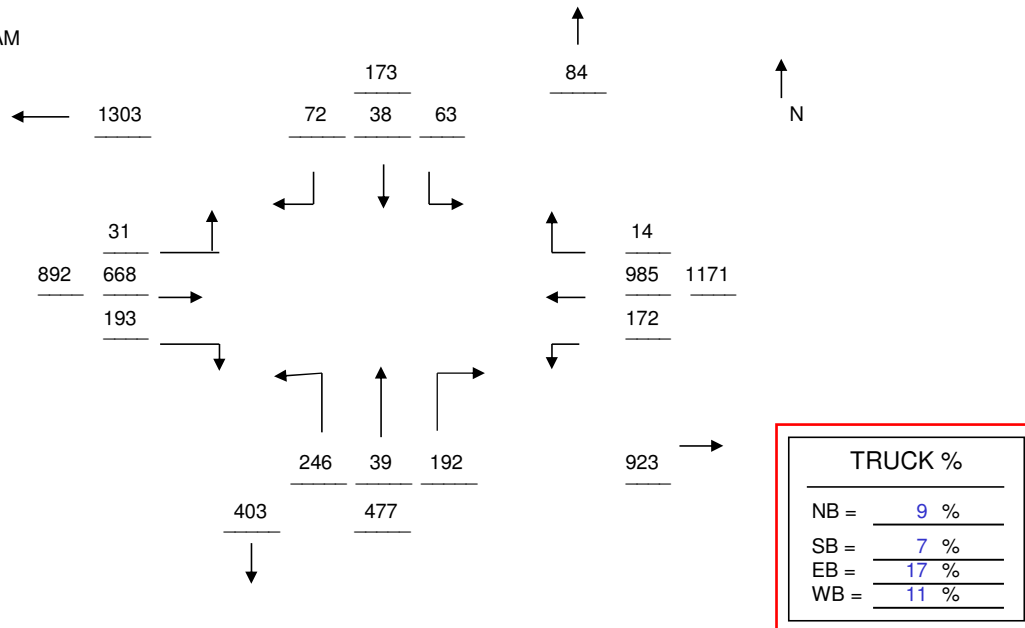
AM Peak Hour	0.92	0.85	0.92	0.89	0.90
PM Peak Hour	0.82	0.90	0.97	0.94	0.98

DPA
RAW TURNING MOVEMENT DIAGRAM

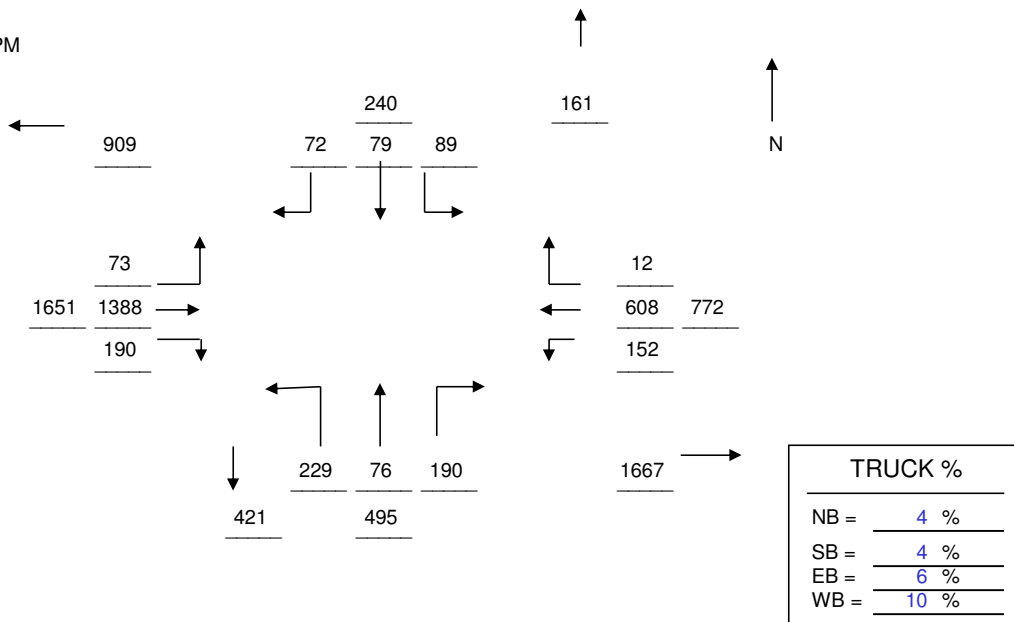
LOCATION: Buckingham Road @ SR 80
COUNTY : Lee
OBSERVER: QC

CITY: 0
DATE: 2/6/2018 Tuesday

AM Peak Hour
8:00 AM 9:00 AM

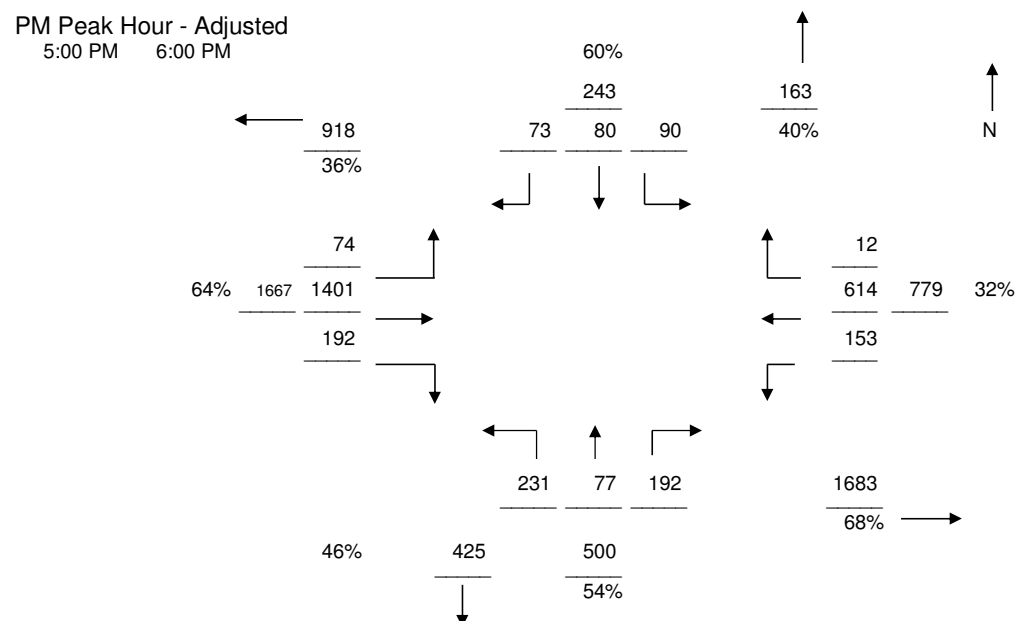
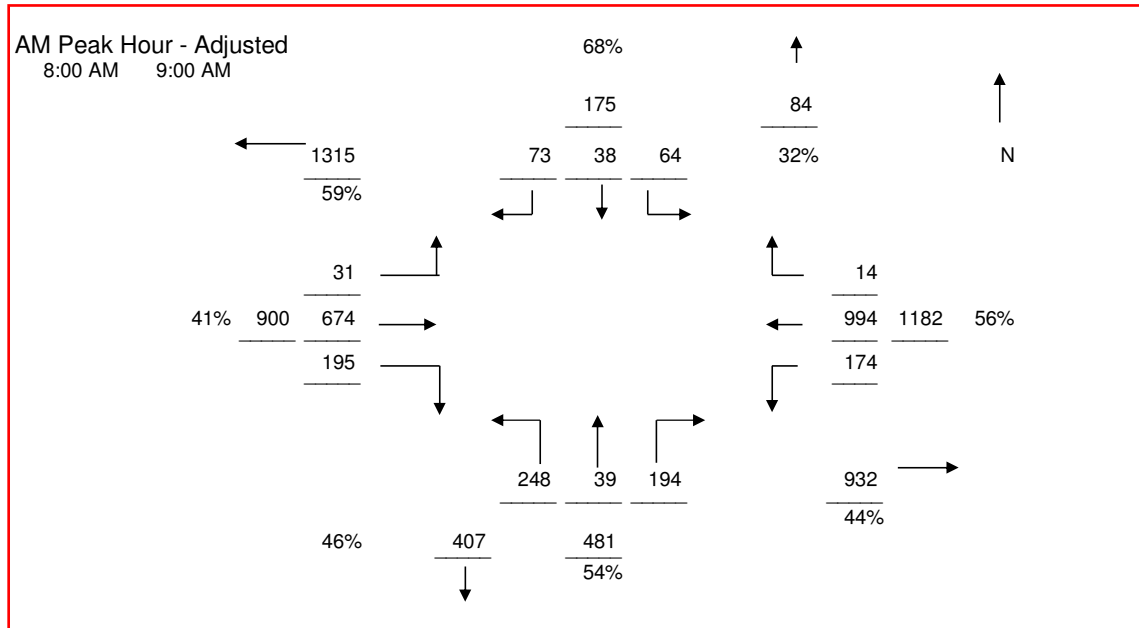


PM Peak Hour
5:00 PM 6:00 PM



DPA
ADJUSTED TURNING MOVEMENT DIAGRAM

LOCATION:	Buckingham Road @ SR 80	REPORT:	2016
COUNTY :	Lee	STATION:	11
OBSERVER:	QC	MONTHLY:	1.07
		ANNUAL:	1.08
		ADJUSTMENT FACTOR:	1.01



David Plummer & Associates
Based On
MSHA Highway Information Services Division
Turning Counts Study - Field Sheet

Request No.: abcock Ranch Increment 1 NOR
Job No.: #19503

Location: Buckingham Road @ SR 80 (Palm Beach)
Date: 04/17/2019 Wednesday
Recorder: QC
Interval (dd): 15
(In Minutes)

County: Lee
Town: Any
Weather: Good

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start 12:00 AM	End 1:00 AM	Volume 0	PM PERIOD 12:00PM-7:00PM	Start 4:45 PM	End 5:45 PM	Volume 3395
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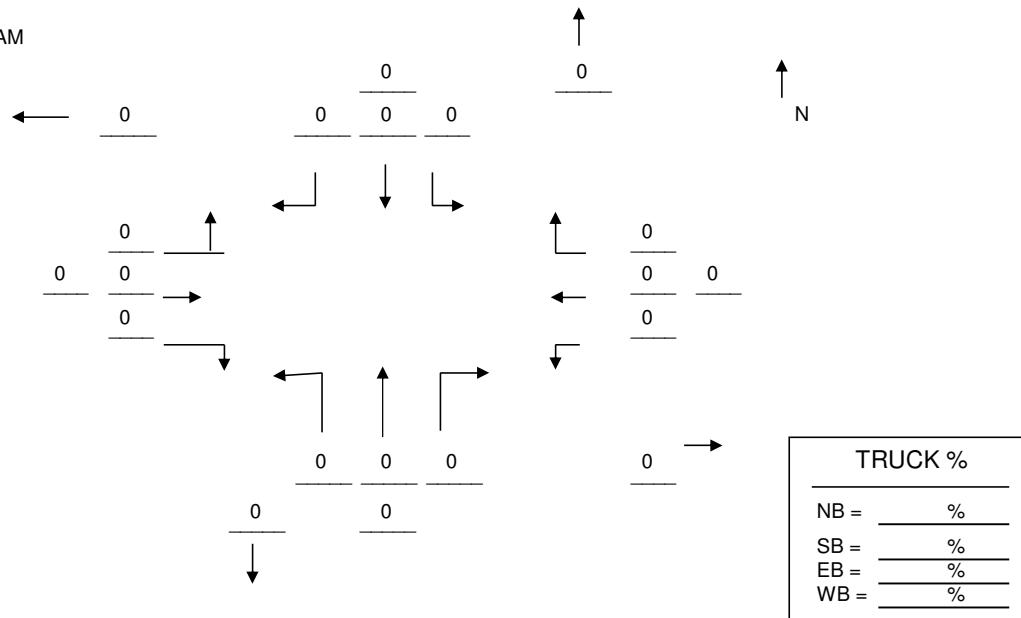
Street Name-->	Buckingham Road				Buckingham Road				SR 80 (Palm Beach Blvd)				SR 80 (Palm Beach Blvd)				GRAND TOTAL
HOURL	Southbound				Northbound				Westbound				Eastbound				
ENDING	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	
7:15 AM				0				0				0				0	0
7:30 AM				0				0				0				0	0
7:45 AM				0				0				0				0	0
8:00 AM				0				0				0				0	0
8:15 AM				0				0				0				0	0
8:30 AM				0				0				0				0	0
8:45 AM				0				0				0				0	0
9:00 AM				0				0				0				0	0
9:15 AM				0				0				0				0	0
9:30 AM				0				0				0				0	0
9:45 AM				0				0				0				0	0
10:00 AM				0				0				0				0	0
10:15 AM				0				0				0				0	0
10:30 AM				0				0				0				0	0
10:45 AM				0				0				0				0	0
11:00 AM				0				0				0				0	0
11:15 AM				0				0				0				0	0
11:30 AM				0				0				0				0	0
11:45 AM				0				0				0				0	0
12:00 PM				0				0				0				0	0
12:15 PM				0				0				0				0	0
12:30 PM				0				0				0				0	0
12:45 PM				0				0				0				0	0
1:00 PM				0				0				0				0	0
1:15 PM				0				0				0				0	0
1:30 PM				0				0				0				0	0
1:45 PM				0				0				0				0	0
2:00 PM				0				0				0				0	0
2:15 PM				0				0				0				0	0
2:30 PM				0				0				0				0	0
2:45 PM				0				0				0				0	0
3:00 PM				0				0				0				0	0
3:15 PM				0				0				0				0	0
3:30 PM				0				0				0				0	0
3:45 PM				0				0				0				0	0
4:00 PM				0				0				0				0	0
4:15 PM	19	18	14	51	73	21	45	139	35	156	5	196	11	269	64	344	730
4:30 PM	15	12	16	43	78	19	38	135	29	171	3	203	5	303	66	374	755
4:45 PM	17	18	20	55	65	21	31	117	40	182	2	224	17	295	54	366	762
5:00 PM	25	26	16	67	70	17	37	124	37	190	4	231	11	365	78	454	876
5:15 PM	27	28	22	77	66	26	38	130	45	173	2	220	18	279	79	376	803
5:30 PM	18	21	15	54	71	15	52	138	40	157	2	199	28	363	81	472	863
5:45 PM	23	24	9	56	76	25	46	147	38	175	5	218	10	370	52	432	853
6:00 PM	23	19	17	59	80	19	48	147	36	174	5	215	12	372	68	452	873
TOTAL	167	166	129	462	579	163	335	1077	300	1378	28	1706	112	2616	542	3270	6515
AM Peak Vol	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM Peak Vol	93	99	62	254	283	83	173	539	160	695	13	868	67	1377	290	1734	3395

DPA
RAW TURNING MOVEMENT DIAGRAM

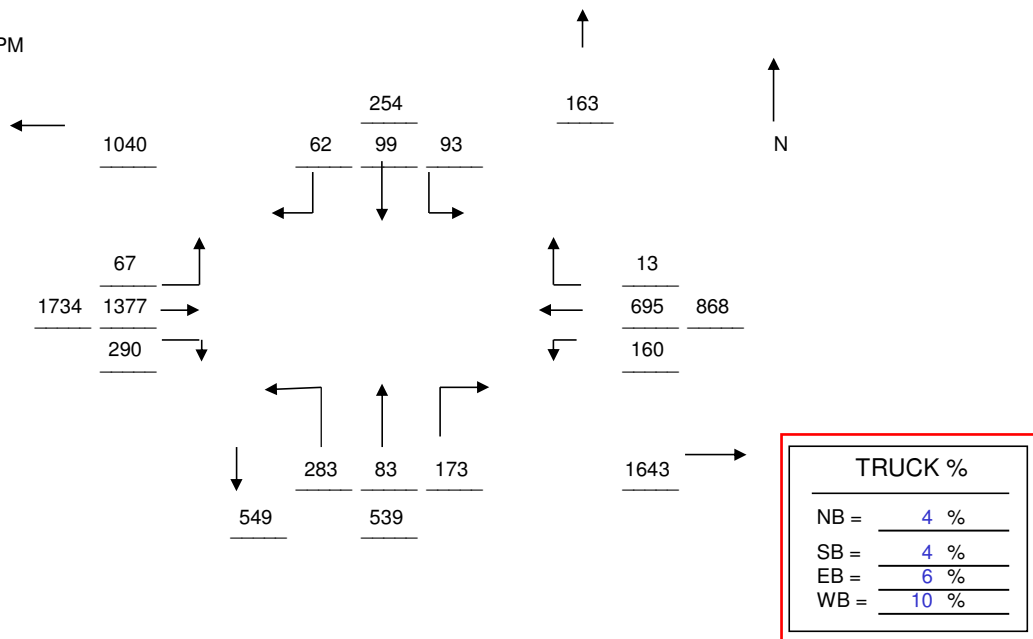
LOCATION: Buckingham Road @ SR 80 (Palm Beach Blvd)
COUNTY : Lee
OBSERVER: QC

CITY: Any
DATE: 04/17/2019 Wednesday

AM Peak Hour
12:00 AM 1:00 AM



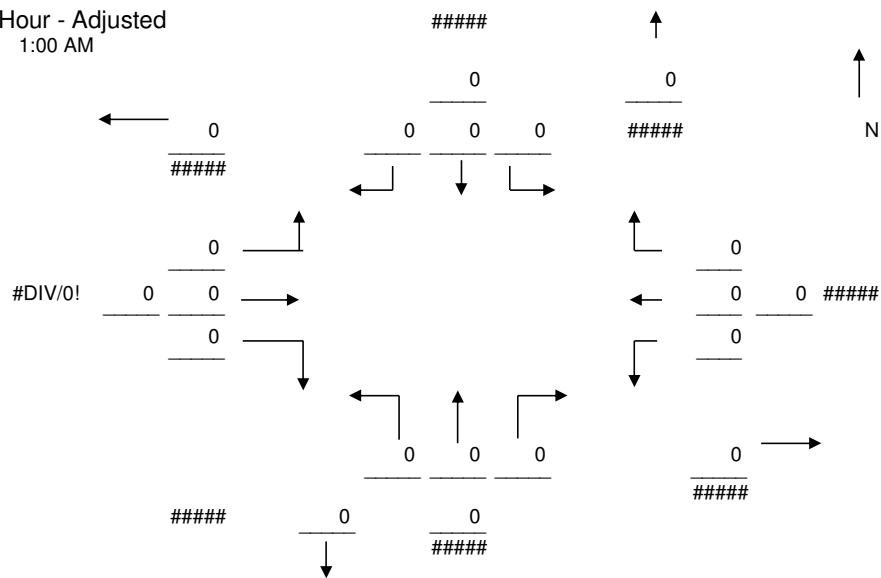
PM Peak Hour
4:45 PM 5:45 PM



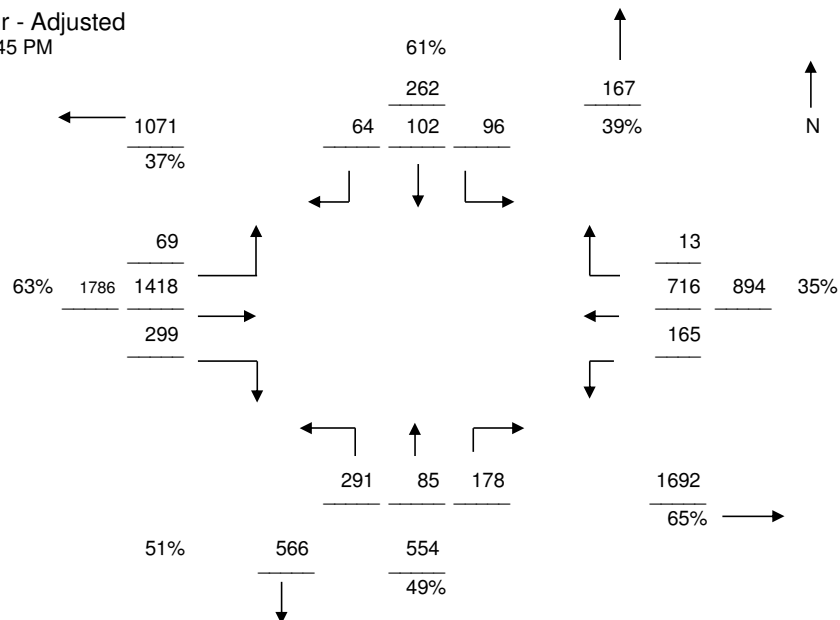
DPA
ADJUSTED TURNING MOVEMENT DIAGRAM

LOCATION:	Buckingham Road @ SR 80 (Palm Beach Blvd)	REPORT:	2018
COUNTY :	Lee	STATION:	Lee
OBSERVER:	QC	WEEKLY:	1.03
		ANNUAL:	n/a
		ADJUSTMENT FACTOR:	1.03

AM Peak Hour - Adjusted
12:00 AM 1:00 AM



PM Peak Hour - Adjusted
4:45 PM 5:45 PM



David Plummer & Associates
Based On
MSHA Highway Information Services Division
Turning Counts Study - Field Sheet

Request No.: bcock Ranch Increment 1B NO
Job No.: 15528

Location: SR 31 @ SR 80 (Palm Beach Blvd)
Date: 01/28/2016 Thursday
Recorder: DC/RC
Interval (dd): 15
(In Minutes)

County: Lee
Town: None
Weather: Rain

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start 7:15 AM	End 8:15 AM	Volume 3148	PM PERIOD 12:00PM-7:00PM	Start 5:00 PM	End 6:00 PM	Volume 3581
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Street																	
Name-->	SR 31				SR 31				SR 80				SR 80				GRAND TOTAL
HOURL	Southbound				Northbound				Westbound				Eastbound				
ENDING	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	
7:15 AM	46	3	41	90	8	4	10	22	11	377	58	446	22	82	3	107	665
7:30 AM	41	4	58	103	11	4	11	26	24	494	67	585	21	113	8	142	856
7:45 AM	41	2	56	99	25	6	10	41	28	480	79	587	31	122	5	158	885
8:00 AM	58	5	54	117	17	5	5	27	26	333	52	411	36	116	13	165	720
8:15 AM	63	4	39	106	16	3	7	26	23	336	57	416	25	111	3	139	687
8:30 AM	55	3	33	91	17	8	10	35	26	312	48	386	41	142	6	189	701
8:45 AM	59	7	38	104	16	4	8	28	23	320	60	403	31	155	9	195	730
9:00 AM	41	8	33	82	8	1	10	19	26	236	43	305	35	166	2	203	609
9:15 AM				0				0				0				0	0
9:30 AM				0				0				0				0	0
9:45 AM				0				0				0				0	0
10:00 AM				0				0				0				0	0
10:15 AM				0				0				0				0	0
10:30 AM				0				0				0				0	0
10:45 AM				0				0				0				0	0
11:00 AM				0				0				0				0	0
11:15 AM				0				0				0				0	0
11:30 AM				0				0				0				0	0
11:45 AM				0				0				0				0	0
12:00 PM				0				0				0				0	0
12:15 PM				0				0				0				0	0
12:30 PM				0				0				0				0	0
12:45 PM				0				0				0				0	0
1:00 PM				0				0				0				0	0
1:15 PM				0				0				0				0	0
1:30 PM				0				0				0				0	0
1:45 PM				0				0				0				0	0
2:00 PM				0				0				0				0	0
2:15 PM				0				0				0				0	0
2:30 PM				0				0				0				0	0
2:45 PM				0				0				0				0	0
3:00 PM				0				0				0				0	0
3:15 PM				0				0				0				0	0
3:30 PM				0				0				0				0	0
3:45 PM				0				0				0				0	0
4:00 PM				0				0				0				0	0
4:15 PM	83	11	32	126	24	17	54	95	28	175	57	260	33	335	27	395	876
4:30 PM	30	11	34	75	31	32	67	130	29	172	59	260	55	312	11	378	843
4:45 PM	40	5	30	75	38	14	86	138	41	212	83	336	89	393	25	507	1056
5:00 PM	53	9	32	94	25	14	73	112	26	151	68	245	54	285	15	354	805
5:15 PM	67	11	24	102	20	28	55	103	20	137	58	215	39	285	11	335	755
5:30 PM	74	9	49	132	18	22	56	96	25	227	48	300	56	363	17	436	964
5:45 PM	89	8	24	121	40	29	84	153	29	209	47	285	39	433	11	483	1042
6:00 PM	62	10	26	98	19	16	64	99	32	182	46	260	31	314	18	363	820
TOTAL	902	110	603	1615	333	207	610	1150	417	4353	930	5700	638	3727	184	4549	13014
AM Peak Vol	203	15	207	425	69	18	33	120	101	1643	255	1999	113	462	29	604	3148
PM Peak Vol	292	38	123	453	97	95	259	451	106	755	199	1060	165	1395	57	1617	3581

Peak Hour Factor (PHF)

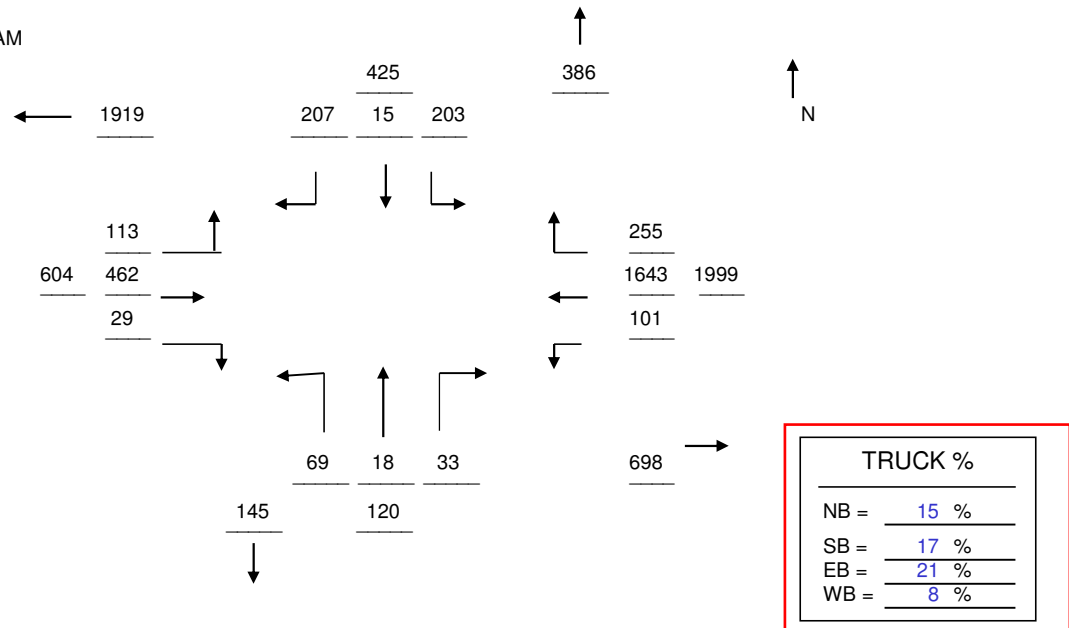
AM Peak Hour	0.91	0.73	0.85	0.92	0.89
PM Peak Hour	0.86	0.74	0.88	0.84	0.86

DPA
RAW TURNING MOVEMENT DIAGRAM

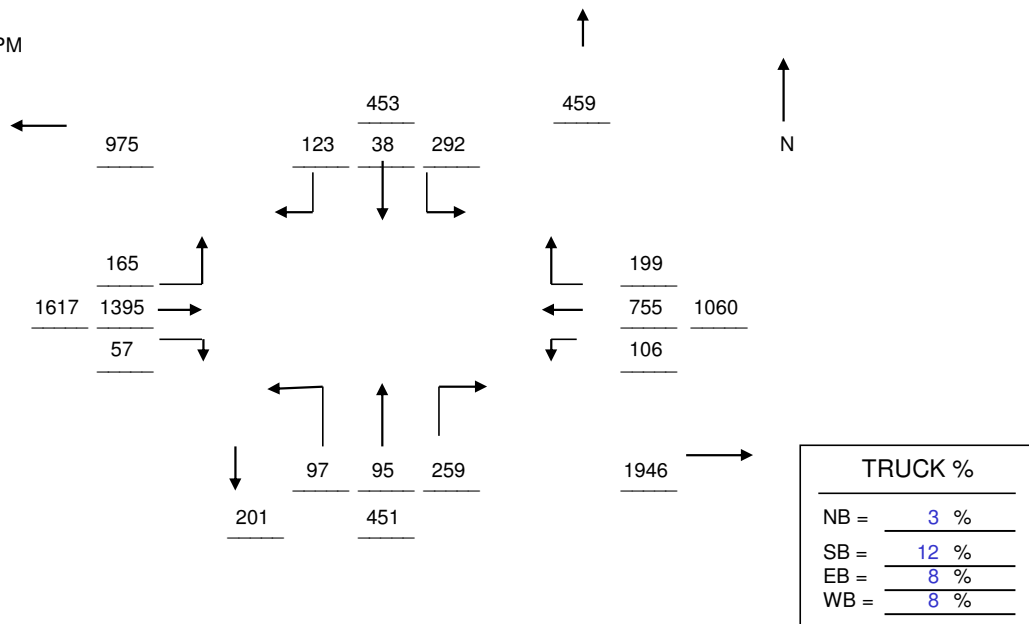
LOCATION: SR 31 @ SR 80 (Palm Beach Blvd)
COUNTY : Lee
OBSERVER: DC/RC

CITY: None
DATE: 01/28/2016 Thursday

AM Peak Hour
7:15 AM 8:15 AM



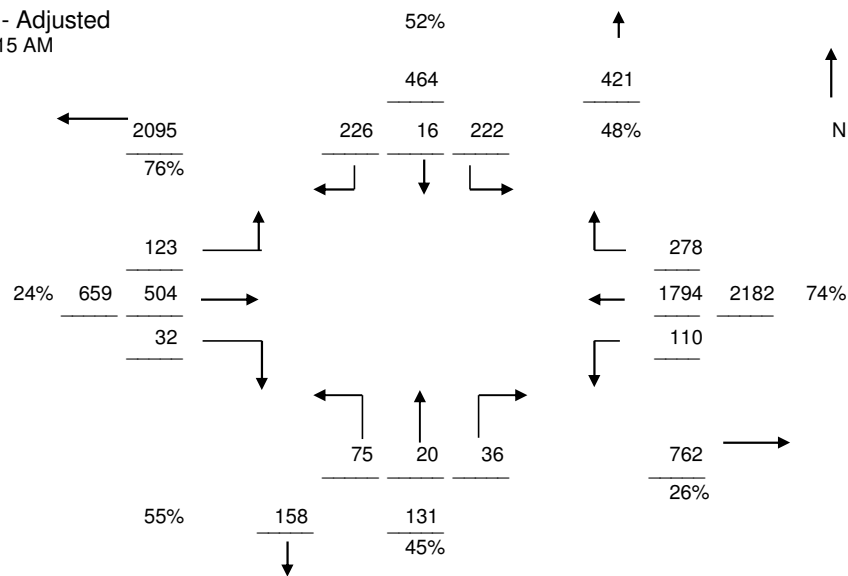
PM Peak Hour
5:00 PM 6:00 PM



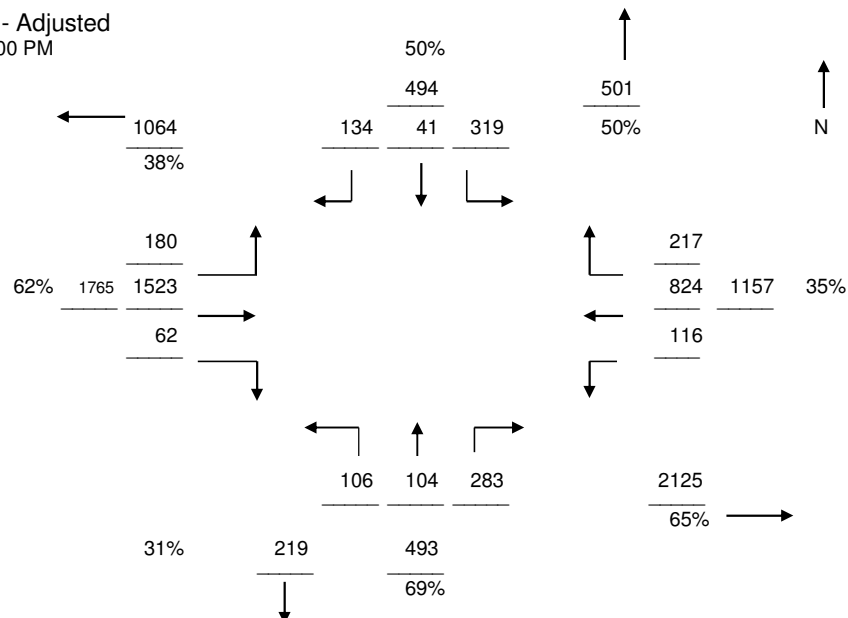
DPA
ADJUSTED TURNING MOVEMENT DIAGRAM

LOCATION:	SR 31 @ SR 80 (Palm Beach Blvd)	REPORT:	2014
COUNTY :	Lee	STATION:	11
OBSERVER:	DC/RC	MONTHLY:	0.98
		ANNUAL:	1.07
		ADJUSTMENT FACTOR:	1.09

AM Peak Hour - Adjusted
7:15 AM 8:15 AM



PM Peak Hour - Adjusted
5:00 PM 6:00 PM



David Plummer & Associates
Based On
MSHA Highway Information Services Division
Turning Counts Study - Field Sheet

Request No.: abcock Ranch Increment 1 NOR
Job No.: #19503

Location: SR 31 @ SR 80 (Palm Beach Blvd)
Date: 04/17/2019 Wednesday
Recorder: QC
Interval (dd): 15
(In Minutes)

County: Lee
Town: Any
Weather: Good

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start 12:00 AM	End 1:00 AM	Volume 0	PM PERIOD 12:00PM-7:00PM	Start 4:45 PM	End 5:45 PM	Volume 4249
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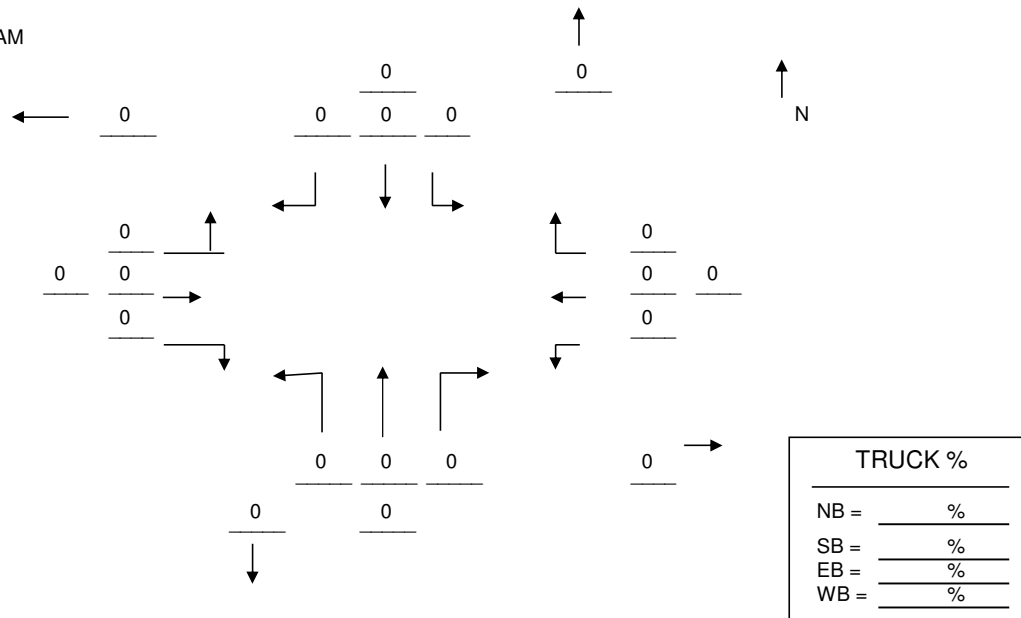
Street																	
Name-->	SR 31				SR 31				SR 80 (Palm Beach Blvd)				SR 80 (Palm Beach Blvd)				GRAND TOTAL
HOURL	Southbound				Northbound				Westbound				Eastbound				
ENDING	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	
7:15 AM				0				0				0				0	0
7:30 AM				0				0				0				0	0
7:45 AM				0				0				0				0	0
8:00 AM				0				0				0				0	0
8:15 AM				0				0				0				0	0
8:30 AM				0				0				0				0	0
8:45 AM				0				0				0				0	0
9:00 AM				0				0				0				0	0
9:15 AM				0				0				0				0	0
9:30 AM				0				0				0				0	0
9:45 AM				0				0				0				0	0
10:00 AM				0				0				0				0	0
10:15 AM				0				0				0				0	0
10:30 AM				0				0				0				0	0
10:45 AM				0				0				0				0	0
11:00 AM				0				0				0				0	0
11:15 AM				0				0				0				0	0
11:30 AM				0				0				0				0	0
11:45 AM				0				0				0				0	0
12:00 PM				0				0				0				0	0
12:15 PM				0				0				0				0	0
12:30 PM				0				0				0				0	0
12:45 PM				0				0				0				0	0
1:00 PM				0				0				0				0	0
1:15 PM				0				0				0				0	0
1:30 PM				0				0				0				0	0
1:45 PM				0				0				0				0	0
2:00 PM				0				0				0				0	0
2:15 PM				0				0				0				0	0
2:30 PM				0				0				0				0	0
2:45 PM				0				0				0				0	0
3:00 PM				0				0				0				0	0
3:15 PM				0				0				0				0	0
3:30 PM				0				0				0				0	0
3:45 PM				0				0				0				0	0
4:00 PM				0				0				0				0	0
4:15 PM	83	13	51	147	28	26	55	109	28	188	51	267	52	340	25	417	940
4:30 PM	85	13	46	144	31	17	58	106	32	211	81	324	50	369	22	441	1015
4:45 PM	72	13	45	130	19	14	60	93	30	219	59	308	48	387	12	447	978
5:00 PM	76	20	54	150	26	23	58	107	24	208	67	299	65	403	14	482	1038
5:15 PM	87	8	43	138	25	25	51	101	28	223	63	314	53	391	20	464	1017
5:30 PM	87	25	49	161	29	18	76	123	24	187	77	288	57	459	25	541	1113
5:45 PM	90	11	53	154	26	20	65	111	27	188	58	273	45	483	15	543	1081
6:00 PM	79	11	47	137	25	18	44	87	28	219	69	316	43	388	22	453	993
TOTAL	659	114	388	1161	209	161	467	837	221	1643	525	2389	413	3220	155	3788	8175
AM Peak Vol	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM Peak Vol	340	64	199	603	106	86	250	442	103	806	265	1174	220	1736	74	2030	4249

DPA
RAW TURNING MOVEMENT DIAGRAM

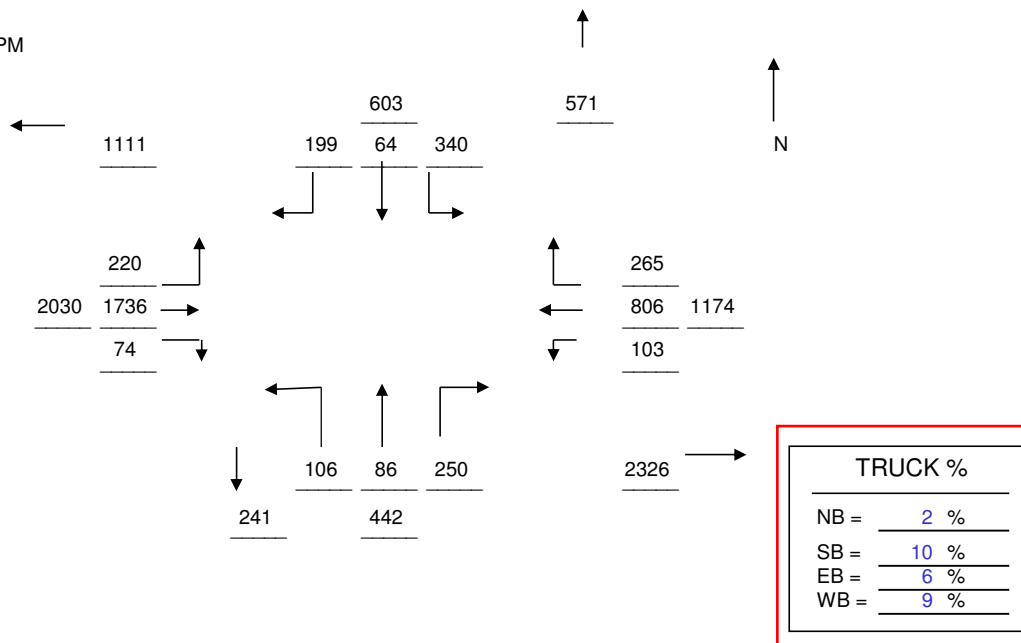
LOCATION: SR 31 @ SR 80 (Palm Beach Blvd)
COUNTY : Lee
OBSERVER: QC

CITY: Any
DATE: 04/17/2019 Wednesday

AM Peak Hour
12:00 AM 1:00 AM



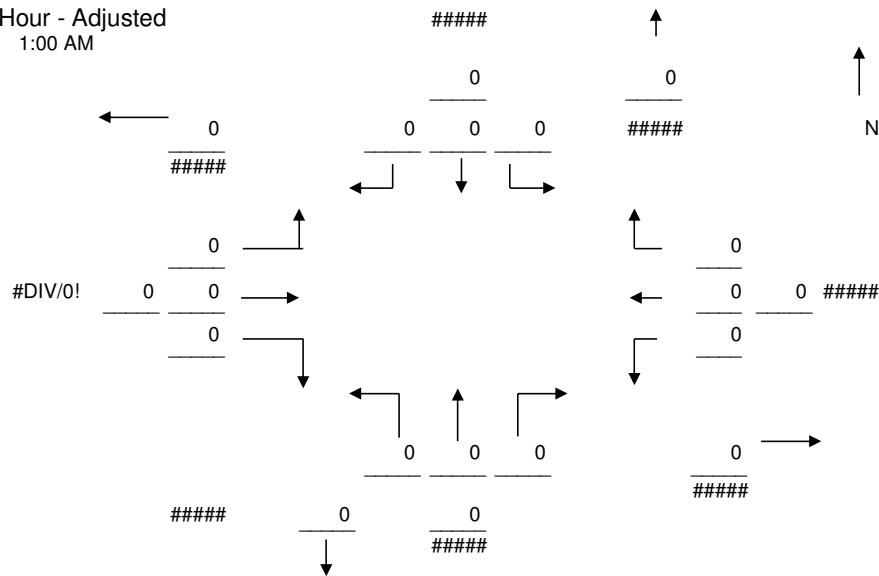
PM Peak Hour
4:45 PM 5:45 PM



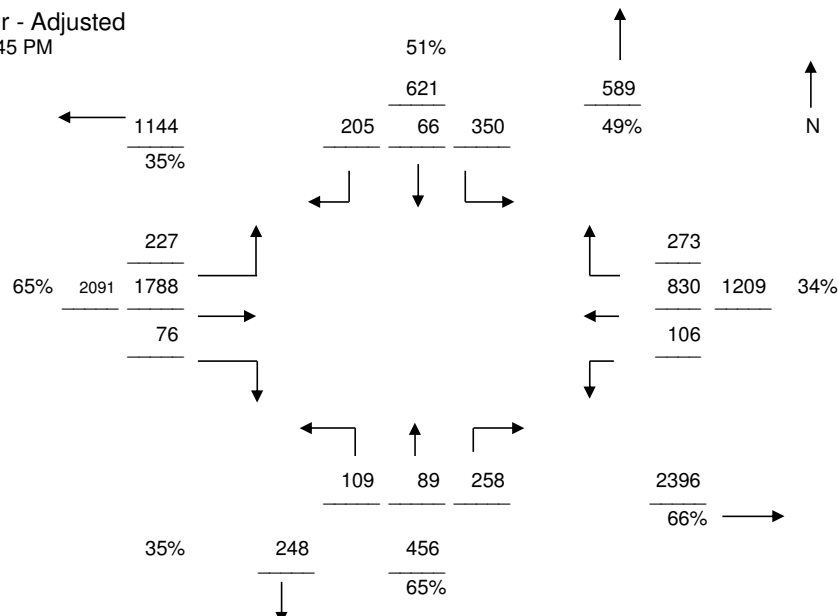
DPA **ADJUSTED TURNING MOVEMENT DIAGRAM**

LOCATION:	SR 31 @ SR 80 (Palm Beach Blvd)	REPORT:	2018
COUNTY :	Lee	STATION:	Lee
OBSERVER:	QC	WEEKLY:	1.03
		ANNUAL:	n/a
		ADJUSTMENT FACTOR:	1.03

AM Peak Hour - Adjusted
12:00 AM 1:00 AM



PM Peak Hour - Adjusted
4:45 PM 5:45 PM



APPENDIX E
INTERSECTION CAPACITY ANALYSIS

HCM 6th Signalized Intersection Summary

1: River Hall Parkway & SR 80

							
Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	2	753	258	66	1440	222	22
Future Volume (veh/h)	2	753	258	66	1440	222	22
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		1648	1826	1841	1796	1856	1870
Adj Flow Rate, veh/h		818	280	72	1565	241	24
Peak Hour Factor		0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %		17	5	4	7	3	2
Cap, veh/h		2315	1144	192	2823	364	168
Arrive On Green		0.74	0.74	0.05	0.83	0.11	0.11
Sat Flow, veh/h		3214	1547	1753	3503	3428	1585
Grp Volume(v), veh/h		818	280	72	1565	241	24
Grp Sat Flow(s),veh/h/ln		1566	1547	1753	1706	1714	1585
Q Serve(g_s), s		11.1	6.9	0.6	17.6	8.1	1.6
Cycle Q Clear(g_c), s		11.1	6.9	0.6	17.6	8.1	1.6
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		2315	1144	192	2823	364	168
V/C Ratio(X)		0.35	0.24	0.38	0.55	0.66	0.14
Avail Cap(c_a), veh/h		2315	1144	198	2823	629	291
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		5.5	5.0	39.8	3.3	51.6	48.7
Incr Delay (d2), s/veh		0.4	0.5	1.2	0.8	2.1	0.4
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		2.7	1.8	1.8	2.9	3.6	0.7
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		5.9	5.5	41.0	4.1	53.6	49.1
LnGrp LOS		A	A	D	A	D	D
Approach Vol, veh/h		1098			1637	265	
Approach Delay, s/veh		5.8			5.7	53.2	
Approach LOS		A			A	D	
Timer - Assigned Phs	1	2			6		8
Phs Duration (G+Y+Rc), s	10.5	92.7			103.3		16.7
Change Period (Y+Rc), s	6.0	6.0			6.0		6.0
Max Green Setting (Gmax), s	5.0	77.0			77.0		20.0
Max Q Clear Time (g_c+I1), s	2.6	13.1			19.6		10.1
Green Ext Time (p_c), s	0.0	7.0			15.9		0.6
Intersection Summary							
HCM 6th Ctrl Delay			10.0				
HCM 6th LOS			A				
Notes							
User approved ignoring U-Turning movement.							

HCM 6th Signalized Intersection Summary

1: River Hall Parkway & SR 80

							
Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	3	1574	245	24	920	196	44
Future Volume (veh/h)	3	1574	245	24	920	196	44
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		1811	1870	1870	1781	1826	1856
Adj Flow Rate, veh/h		1640	255	25	958	204	46
Peak Hour Factor		0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %		6	2	2	8	5	3
Cap, veh/h		2739	1403	122	2902	301	140
Arrive On Green		0.80	0.80	0.03	0.86	0.09	0.09
Sat Flow, veh/h		3532	1585	1781	3474	3374	1572
Grp Volume(v), veh/h		1640	255	25	958	204	46
Grp Sat Flow(s),veh/h/ln		1721	1585	1781	1692	1687	1572
Q Serve(g_s), s		27.9	3.3	0.2	8.4	8.8	4.1
Cycle Q Clear(g_c), s		27.9	3.3	0.2	8.4	8.8	4.1
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		2739	1403	122	2902	301	140
V/C Ratio(X)		0.60	0.18	0.21	0.33	0.68	0.33
Avail Cap(c_a), veh/h		2739	1403	143	2902	517	241
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		6.0	1.2	54.4	2.1	66.2	64.1
Incr Delay (d2), s/veh		1.0	0.3	0.8	0.3	2.7	1.3
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		7.4	1.5	0.8	1.4	3.9	1.7
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		6.9	1.5	55.2	2.4	68.9	65.4
LnGrp LOS		A	A	E	A	E	E
Approach Vol, veh/h		1895			983	250	
Approach Delay, s/veh		6.2			3.8	68.2	
Approach LOS		A			A	E	
Timer - Assigned Phs	1	2			6	8	
Phs Duration (G+Y+Rc), s	9.2	123.4			132.6	17.4	
Change Period (Y+Rc), s	6.0	6.0			6.0	6.0	
Max Green Setting (Gmax), s	5.0	106.0			106.0	21.0	
Max Q Clear Time (g_c+I1), s	2.2	29.9			10.4	10.8	
Green Ext Time (p_c), s	0.0	20.7			7.1	0.6	
Intersection Summary							
HCM 6th Ctrl Delay			10.4				
HCM 6th LOS			B				
Notes							
User approved ignoring U-Turning movement.							

HCM 6th Signalized Intersection Summary

5: Buckingham Rd & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	716	207	185	1057	15	264	41	206	68	40	78
Future Volume (veh/h)	33	716	207	185	1057	15	264	41	206	68	40	78
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	1648	1648	1648	1737	1737	1737	1767	1767	1767	1796	1796	1796
Adj Flow Rate, veh/h	37	796	0	206	1174	0	293	46	229	76	44	87
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	17	17	17	11	11	11	9	9	9	7	7	7
Cap, veh/h	91	1354		258	1750		455	53	266	218	169	143
Arrive On Green	0.06	0.43	0.00	0.16	0.53	0.00	0.18	0.21	0.21	0.07	0.09	0.09
Sat Flow, veh/h	1570	3131	1397	1654	3300	1472	1682	257	1279	1711	1796	1522
Grp Volume(v), veh/h	37	796	0	206	1174	0	293	0	275	76	44	87
Grp Sat Flow(s),veh/h/ln	1570	1566	1397	1654	1650	1472	1682	0	1536	1711	1796	1522
Q Serve(g_s), s	2.7	23.2	0.0	14.4	31.1	0.0	17.8	0.0	20.7	4.7	2.7	6.6
Cycle Q Clear(g_c), s	2.7	23.2	0.0	14.4	31.1	0.0	17.8	0.0	20.7	4.7	2.7	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.83	1.00		1.00
Lane Grp Cap(c), veh/h	91	1354		258	1750		455	0	320	218	169	143
V/C Ratio(X)	0.41	0.59		0.80	0.67		0.64	0.00	0.86	0.35	0.26	0.61
Avail Cap(c_a), veh/h	118	1354		345	1750		496	0	333	226	169	143
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	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.5	25.9	0.0	48.9	20.6	0.0	36.2	0.0	45.8	44.0	50.5	52.2
Incr Delay (d2), s/veh	2.9	1.9	0.0	9.3	2.1	0.0	2.5	0.0	20.0	1.0	1.1	8.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	8.6	0.0	6.5	11.5	0.0	7.4	0.0	9.4	2.0	1.3	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.4	27.8	0.0	58.2	22.6	0.0	38.7	0.0	65.8	45.0	51.6	60.6
LnGrp LOS	E	C		E	C		D	A	E	D	D	E
Approach Vol, veh/h		833			1380			568			207	
Approach Delay, s/veh		29.1			27.9			51.8			53.0	
Approach LOS		C			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	67.6	12.4	29.0	22.7	55.9	26.1	15.3				
Change Period (Y+Rc), s	6.0	7.0	6.0	6.0	6.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	7.0	57.0	7.0	24.0	23.0	41.0	23.0	8.0				
Max Q Clear Time (g_c+I1), s	4.7	33.1	6.7	22.7	16.4	25.2	19.8	8.6				
Green Ext Time (p_c), s	0.0	14.6	0.0	0.3	0.3	7.6	0.3	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			34.5									
HCM 6th LOS			C									
Notes												
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

5: Buckingham Rd & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	1478	312	172	746	14	303	89	185	100	106	67
Future Volume (veh/h)	72	1478	312	172	746	14	303	89	185	100	106	67
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	1811	1811	1811	1752	1752	1752	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	74	1524	0	177	769	0	312	92	191	103	109	69
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	6	6	6	10	10	10	4	4	4	4	4	4
Cap, veh/h	114	1755		217	1910		378	103	214	180	147	125
Arrive On Green	0.07	0.51	0.00	0.13	0.57	0.00	0.17	0.19	0.19	0.06	0.08	0.08
Sat Flow, veh/h	1725	3441	1535	1668	3328	1485	1753	534	1108	1753	1841	1560
Grp Volume(v), veh/h	74	1524	0	177	769	0	312	0	283	103	109	69
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1668	1664	1485	1753	0	1641	1753	1841	1560
Q Serve(g_s), s	6.3	58.4	0.0	15.5	19.2	0.0	23.8	0.0	25.2	8.1	8.7	6.4
Cycle Q Clear(g_c), s	6.3	58.4	0.0	15.5	19.2	0.0	23.8	0.0	25.2	8.1	8.7	6.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	114	1755		217	1910		378	0	317	180	147	125
V/C Ratio(X)	0.65	0.87		0.82	0.40		0.83	0.00	0.89	0.57	0.74	0.55
Avail Cap(c_a), veh/h	149	1755		222	1910		378	0	317	180	147	125
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	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.3	32.3	0.0	63.5	17.7	0.0	49.6	0.0	59.0	59.2	67.5	66.4
Incr Delay (d2), s/veh	6.0	6.1	0.0	20.1	0.6	0.0	13.9	0.0	25.9	4.2	19.2	6.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	24.6	0.0	7.7	7.3	0.0	11.7	0.0	12.6	3.7	4.8	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.4	38.5	0.0	83.6	18.3	0.0	63.4	0.0	84.9	63.4	86.6	73.0
LnGrp LOS	E	D		F	B		E	A	F	E	F	E
Approach Vol, veh/h		1598			946			595			281	
Approach Delay, s/veh		40.1			30.6			73.7			74.8	
Approach LOS		D			C			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.9	90.1	13.0	33.0	23.5	80.5	30.0	16.0				
Change Period (Y+Rc), s	6.0	7.0	6.0	6.0	6.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	11.0	80.0	7.0	27.0	18.0	73.0	24.0	10.0				
Max Q Clear Time (g_c+I1), s	8.3	21.2	10.1	27.2	17.5	60.4	25.8	10.7				
Green Ext Time (p_c), s	0.0	12.3	0.0	0.0	0.0	10.6	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			46.2									
HCM 6th LOS			D									
Notes												
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

6: SR 31 & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 						 	
Traffic Volume (veh/h)	137	559	36	122	1991	309	83	22	40	246	18	251
Future Volume (veh/h)	137	559	36	122	1991	309	83	22	40	246	18	251
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	1589	1589	1589	1781	1781	1781	1678	1678	1678	1648	1648	1648
Adj Flow Rate, veh/h	154	628	40	137	2237	0	59	73	45	290	0	282
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, %	21	21	21	8	8	8	15	15	15	17	17	17
Cap, veh/h	159	2832	879	586	2175		100	105	89	360	0	160
Arrive On Green	0.07	0.65	0.65	0.06	0.64	0.00	0.06	0.06	0.06	0.11	0.00	0.11
Sat Flow, veh/h	1513	4337	1346	1697	3385	1510	1598	1678	1422	3139	0	1397
Grp Volume(v), veh/h	154	628	40	137	2237	0	59	73	45	290	0	282
Grp Sat Flow(s),veh/h/ln	1513	1446	1346	1697	1692	1510	1598	1678	1422	1570	0	1397
Q Serve(g_s), s	10.5	8.8	1.6	4.0	96.4	0.0	5.4	6.4	4.6	13.5	0.0	17.2
Cycle Q Clear(g_c), s	10.5	8.8	1.6	4.0	96.4	0.0	5.4	6.4	4.6	13.5	0.0	17.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	159	2832	879	586	2175		100	105	89	360	0	160
V/C Ratio(X)	0.97	0.22	0.05	0.23	1.03		0.59	0.69	0.51	0.81	0.00	1.76
Avail Cap(c_a), veh/h	159	2832	879	589	2175		100	105	89	360	0	160
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	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.1	10.6	9.3	7.6	26.8	0.0	68.4	68.9	68.0	64.8	0.0	66.4
Incr Delay (d2), s/veh	61.9	0.2	0.1	0.2	27.0	0.0	8.8	17.9	4.5	13.2	0.0	366.7
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	8.5	2.7	0.5	1.4	42.6	0.0	2.4	3.2	1.8	6.0	0.0	22.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	115.9	10.8	9.4	7.8	53.8	0.0	77.2	86.8	72.6	77.9	0.0	433.1
LnGrp LOS	F	B	A	A	F		E	F	E	E	A	F
Approach Vol, veh/h		822			2374			177			572	
Approach Delay, s/veh		30.4			51.1			80.0			253.0	
Approach LOS		C			D			E			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	100.4		13.4	13.5	101.9		21.2				
Change Period (Y+Rc), s	6.5	7.4		6.4	6.5	7.4		6.4				
Max Green Setting (Gmax), s	8.5	93.0		7.0	7.3	94.2		14.8				
Max Q Clear Time (g_c+I1), s	12.5	98.4		8.4	6.0	10.8		19.2				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	10.1		0.0				

Intersection Summary

HCM 6th Ctrl Delay 77.4

HCM 6th LOS E

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

6: SR 31 & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 			 			 	
Traffic Volume (veh/h)	237	1867	79	111	867	285	114	93	269	365	69	214
Future Volume (veh/h)	237	1867	79	111	867	285	114	93	269	365	69	214
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	1811	1811	1811	1767	1767	1767	1870	1870	1870	1752	1752	1752
Adj Flow Rate, veh/h	249	1965	83	117	913	0	109	113	283	436	0	225
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	9	9	9	2	2	2	10	10	10
Cap, veh/h	377	2457	763	190	1536		261	274	232	614	0	273
Arrive On Green	0.11	0.50	0.50	0.07	0.46	0.00	0.15	0.15	0.15	0.18	0.00	0.18
Sat Flow, veh/h	1725	4944	1535	1682	3357	1497	1781	1870	1585	3337	0	1485
Grp Volume(v), veh/h	249	1965	83	117	913	0	109	113	283	436	0	225
Grp Sat Flow(s),veh/h/ln	1725	1648	1535	1682	1678	1497	1781	1870	1585	1668	0	1485
Q Serve(g_s), s	10.9	49.8	4.3	5.4	30.4	0.0	8.3	8.2	22.0	18.4	0.0	21.9
Cycle Q Clear(g_c), s	10.9	49.8	4.3	5.4	30.4	0.0	8.3	8.2	22.0	18.4	0.0	21.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	377	2457	763	190	1536		261	274	232	614	0	273
V/C Ratio(X)	0.66	0.80	0.11	0.62	0.59		0.42	0.41	1.22	0.71	0.00	0.82
Avail Cap(c_a), veh/h	448	2457	763	204	1536		261	274	232	667	0	297
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	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.2	31.5	20.1	30.9	30.3	0.0	58.2	58.1	64.0	57.5	0.0	58.9
Incr Delay (d2), s/veh	2.8	2.8	0.3	4.9	1.7	0.0	1.1	1.0	130.3	3.6	0.0	16.9
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	4.5	19.5	1.6	2.3	12.3	0.0	3.8	3.9	17.2	8.0	0.0	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.0	34.3	20.4	35.8	32.0	0.0	59.2	59.1	194.3	61.1	0.0	75.8
LnGrp LOS	C	C	C	D	C		E	E	F	E	A	E
Approach Vol, veh/h		2297			1030			505			661	
Approach Delay, s/veh		32.8			32.4			134.9			66.1	
Approach LOS		C			C			F			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.8	72.7		26.0	13.9	78.5		31.6				
Change Period (Y+Rc), s	6.5	7.4		6.4	6.5	7.4		6.4				
Max Green Setting (Gmax), s	19.5	56.6		19.6	8.7	67.4		27.6				
Max Q Clear Time (g_c+I1), s	12.9	32.4		24.0	7.4	51.8		23.9				
Green Ext Time (p_c), s	0.4	11.3		0.0	0.0	14.3		1.3				

Intersection Summary

HCM 6th Ctrl Delay 49.1

HCM 6th LOS D

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

1: River Hall Parkway & SR 80

							
Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	2	822	501	101	1591	933	180
Future Volume (veh/h)	2	822	501	101	1591	933	180
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		1648	1826	1841	1796	1856	1870
Adj Flow Rate, veh/h		893	545	110	1729	1014	196
Peak Hour Factor		0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %		17	5	4	7	3	2
Cap, veh/h		1699	840	187	2161	1028	476
Arrive On Green		0.54	0.54	0.06	0.63	0.30	0.30
Sat Flow, veh/h		3214	1547	1753	3503	3428	1585
Grp Volume(v), veh/h		893	545	110	1729	1014	196
Grp Sat Flow(s),veh/h/ln		1566	1547	1753	1706	1714	1585
Q Serve(g_s), s		21.9	29.8	2.5	45.2	35.3	11.9
Cycle Q Clear(g_c), s		21.9	29.8	2.5	45.2	35.3	11.9
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1699	840	187	2161	1028	476
V/C Ratio(X)		0.53	0.65	0.59	0.80	0.99	0.41
Avail Cap(c_a), veh/h		1699	840	189	2161	1028	476
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		17.6	19.4	29.1	16.3	41.7	33.5
Incr Delay (d2), s/veh		1.2	3.9	4.6	3.2	24.6	0.6
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		7.3	10.3	2.1	15.3	18.2	4.6
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		18.7	23.2	33.7	19.6	66.3	34.1
LnGrp LOS		B	C	C	B	E	C
Approach Vol, veh/h		1438			1839	1210	
Approach Delay, s/veh		20.4			20.4	61.1	
Approach LOS		C			C	E	
Timer - Assigned Phs	1	2			6	8	
Phs Duration (G+Y+Rc), s	10.9	69.1			80.0	40.0	
Change Period (Y+Rc), s	6.0	6.0			6.0	6.0	
Max Green Setting (Gmax), s	5.0	63.0			63.0	34.0	
Max Q Clear Time (g_c+I1), s	4.5	31.8			47.2	37.3	
Green Ext Time (p_c), s	0.0	8.9			10.2	0.0	
Intersection Summary							
HCM 6th Ctrl Delay			31.4				
HCM 6th LOS			C				
Notes							
User approved ignoring U-Turning movement.							

HCM 6th Signalized Intersection Summary

1: River Hall Parkway & SR 80

							
Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	3	1717	1217	216	1017	734	160
Future Volume (veh/h)	3	1717	1217	216	1017	734	160
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		1811	1870	1870	1781	1826	1856
Adj Flow Rate, veh/h		1789	1268	225	1059	765	167
Peak Hour Factor		0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %		6	2	2	8	5	3
Cap, veh/h		1983	1321	210	2334	867	404
Arrive On Green		0.58	0.58	0.09	0.69	0.26	0.26
Sat Flow, veh/h		3532	1585	1781	3474	3374	1572
Grp Volume(v), veh/h		1789	1268	225	1059	765	167
Grp Sat Flow(s),veh/h/ln		1721	1585	1781	1692	1687	1572
Q Serve(g_s), s		68.8	86.4	13.0	21.2	32.7	13.2
Cycle Q Clear(g_c), s		68.8	86.4	13.0	21.2	32.7	13.2
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1983	1321	210	2334	867	404
V/C Ratio(X)		0.90	0.96	1.07	0.45	0.88	0.41
Avail Cap(c_a), veh/h		1983	1321	210	2334	945	440
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		28.0	9.3	57.6	10.5	53.5	46.3
Incr Delay (d2), s/veh		7.2	16.9	82.6	0.6	9.3	0.7
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		27.4	53.9	12.6	7.1	15.0	5.3
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		35.2	26.2	140.2	11.2	62.8	47.0
LnGrp LOS		D	C	F	B	E	D
Approach Vol, veh/h		3057			1284	932	
Approach Delay, s/veh		31.5			33.8	60.0	
Approach LOS		C			C	E	
Timer - Assigned Phs	1	2			6	8	
Phs Duration (G+Y+Rc), s	17.0	90.4			107.4	42.6	
Change Period (Y+Rc), s	6.0	6.0			6.0	6.0	
Max Green Setting (Gmax), s	11.0	81.0			87.0	40.0	
Max Q Clear Time (g_c+I1), s	15.0	88.4			23.2	34.7	
Green Ext Time (p_c), s	0.0	0.0			8.2	1.9	
Intersection Summary							
HCM 6th Ctrl Delay			37.1				
HCM 6th LOS			D				
Notes							
User approved ignoring U-Turning movement.							

HCM 6th Signalized Intersection Summary

5: Buckingham Rd & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	924	229	398	1636	39	292	45	281	82	44	86
Future Volume (veh/h)	36	924	229	398	1636	39	292	45	281	82	44	86
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	1648	1648	1648	1737	1737	1737	1767	1767	1767	1796	1796	1796
Adj Flow Rate, veh/h	40	1027	0	442	1818	0	324	50	312	91	49	96
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	17	17	17	11	11	11	9	9	9	7	7	7
Cap, veh/h	94	1148		455	1921		366	32	198	188	150	127
Arrive On Green	0.06	0.37	0.00	0.28	0.58	0.00	0.14	0.15	0.15	0.08	0.08	0.08
Sat Flow, veh/h	1570	3131	1397	1654	3300	1472	1682	211	1318	1711	1796	1522
Grp Volume(v), veh/h	40	1027	0	442	1818	0	324	0	362	91	49	96
Grp Sat Flow(s),veh/h/ln	1570	1566	1397	1654	1650	1472	1682	0	1529	1711	1796	1522
Q Serve(g_s), s	3.0	37.1	0.0	31.7	61.5	0.0	17.0	0.0	18.0	5.7	3.1	7.4
Cycle Q Clear(g_c), s	3.0	37.1	0.0	31.7	61.5	0.0	17.0	0.0	18.0	5.7	3.1	7.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.86	1.00		1.00
Lane Grp Cap(c), veh/h	94	1148		455	1921		366	0	229	188	150	127
V/C Ratio(X)	0.43	0.89		0.97	0.95		0.89	0.00	1.58	0.48	0.33	0.76
Avail Cap(c_a), veh/h	118	1148		455	1921		366	0	229	188	150	127
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	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.4	35.8	0.0	43.0	23.3	0.0	44.2	0.0	51.0	45.3	51.8	53.8
Incr Delay (d2), s/veh	3.1	10.8	0.0	34.8	11.3	0.0	21.9	0.0	280.0	1.9	1.8	24.0
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	1.2	15.1	0.0	16.8	24.0	0.0	3.7	0.0	24.5	2.5	1.4	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.5	46.6	0.0	77.8	34.6	0.0	66.1	0.0	331.0	47.2	53.6	77.8
LnGrp LOS	E	D		E	C		E	A	F	D	D	E
Approach Vol, veh/h		1067			2260			686			236	
Approach Delay, s/veh		47.0			43.1			205.9			61.0	
Approach LOS		D			D			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	73.8	13.0	22.0	37.0	48.0	21.0	14.0				
Change Period (Y+Rc), s	6.0	7.0	6.0	6.0	6.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	7.0	65.0	7.0	16.0	31.0	41.0	15.0	8.0				
Max Q Clear Time (g_c+I1), s	5.0	63.5	7.7	20.0	33.7	39.1	19.0	9.4				
Green Ext Time (p_c), s	0.0	1.4	0.0	0.0	0.0	1.5	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay 71.3

HCM 6th LOS E

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

5: Buckingham Rd & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	2258	345	331	1164	31	335	98	464	140	117	74
Future Volume (veh/h)	80	2258	345	331	1164	31	335	98	464	140	117	74
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	1811	1811	1811	1752	1752	1752	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	82	2328	0	341	1200	0	345	101	478	144	121	76
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	6	6	6	10	10	10	4	4	4	4	4	4
Cap, veh/h	123	1743		245	1937		340	50	238	153	172	146
Arrive On Green	0.07	0.51	0.00	0.15	0.58	0.00	0.15	0.18	0.18	0.06	0.09	0.09
Sat Flow, veh/h	1725	3441	1535	1668	3328	1485	1753	280	1323	1753	1841	1560
Grp Volume(v), veh/h	82	2328	0	341	1200	0	345	0	579	144	121	76
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1668	1664	1485	1753	0	1603	1753	1841	1560
Q Serve(g_s), s	7.0	76.0	0.0	22.0	35.3	0.0	22.0	0.0	27.0	9.0	9.6	7.0
Cycle Q Clear(g_c), s	7.0	76.0	0.0	22.0	35.3	0.0	22.0	0.0	27.0	9.0	9.6	7.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.83	1.00		1.00
Lane Grp Cap(c), veh/h	123	1743		245	1937		340	0	288	153	172	146
V/C Ratio(X)	0.67	1.34		1.39	0.62		1.02	0.00	2.01	0.94	0.70	0.52
Avail Cap(c_a), veh/h	149	1743		245	1937		340	0	288	153	172	146
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	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.9	37.0	0.0	64.0	20.5	0.0	54.3	0.0	61.5	61.5	66.0	64.8
Incr Delay (d2), s/veh	8.1	154.9	0.0	200.2	1.5	0.0	52.9	0.0	465.3	55.0	13.4	4.5
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	3.3	67.5	0.0	22.8	13.4	0.0	7.2	0.0	48.0	3.4	5.1	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.1	191.9	0.0	264.2	22.0	0.0	107.3	0.0	526.8	116.4	79.4	69.3
LnGrp LOS	E	F		F	C		F	A	F	F	E	E
Approach Vol, veh/h		2410			1541			924			341	
Approach Delay, s/veh		187.9			75.6			370.2			92.8	
Approach LOS		F			E			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.7	91.3	13.0	31.0	26.0	80.0	26.0	18.0				
Change Period (Y+Rc), s	6.0	7.0	6.0	6.0	6.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	11.0	82.0	7.0	25.0	20.0	73.0	20.0	12.0				
Max Q Clear Time (g_c+I1), s	9.0	37.3	11.0	29.0	24.0	78.0	24.0	11.6				
Green Ext Time (p_c), s	0.0	21.4	0.0	0.0	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			180.8									
HCM 6th LOS			F									
Notes												
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

6: SR 31 & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 						 	
Traffic Volume (veh/h)	152	694	40	135	2476	504	92	24	44	318	20	279
Future Volume (veh/h)	152	694	40	135	2476	504	92	24	44	318	20	279
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	1589	1589	1589	1781	1781	1781	1678	1678	1678	1648	1648	1648
Adj Flow Rate, veh/h	171	780	45	152	2782	0	65	80	49	373	0	313
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, %	21	21	21	8	8	8	15	15	15	17	17	17
Cap, veh/h	180	2571	798	507	2005		125	131	111	366	0	163
Arrive On Green	0.08	0.59	0.59	0.08	0.59	0.00	0.08	0.08	0.08	0.12	0.00	0.12
Sat Flow, veh/h	1513	4337	1346	1697	3385	1510	1598	1678	1422	3139	0	1397
Grp Volume(v), veh/h	171	780	45	152	2782	0	65	80	49	373	0	313
Grp Sat Flow(s),veh/h/ln	1513	1446	1346	1697	1692	1510	1598	1678	1422	1570	0	1397
Q Serve(g_s), s	8.7	10.7	1.7	4.0	71.1	0.0	4.7	5.5	3.9	14.0	0.0	14.0
Cycle Q Clear(g_c), s	8.7	10.7	1.7	4.0	71.1	0.0	4.7	5.5	3.9	14.0	0.0	14.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	180	2571	798	507	2005		125	131	111	366	0	163
V/C Ratio(X)	0.95	0.30	0.06	0.30	1.39		0.52	0.61	0.44	1.02	0.00	1.92
Avail Cap(c_a), veh/h	180	2571	798	512	2005		125	131	111	366	0	163
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	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.2	12.1	10.3	8.1	24.4	0.0	53.1	53.5	52.8	53.0	0.0	53.0
Incr Delay (d2), s/veh	52.9	0.3	0.1	0.3	177.4	0.0	3.8	7.9	2.7	51.8	0.0	436.3
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	7.6	3.2	0.5	1.3	74.0	0.0	2.0	2.6	1.5	8.0	0.0	24.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	92.1	12.4	10.4	8.4	201.9	0.0	56.9	61.4	55.5	104.8	0.0	489.3
LnGrp LOS	F	B	B	A	F		E	E	E	F	A	F
Approach Vol, veh/h		996			2934			194			686	
Approach Delay, s/veh		26.0			191.8			58.4			280.2	
Approach LOS		C			F			E			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.5	75.1		13.4	13.5	75.1		18.0				
Change Period (Y+Rc), s	6.5	7.4		6.4	6.5	7.4		6.4				
Max Green Setting (Gmax), s	7.0	67.7		7.0	7.3	67.4		11.6				
Max Q Clear Time (g_c+I1), s	10.7	73.1		7.5	6.0	12.7		16.0				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	12.9		0.0				

Intersection Summary

HCM 6th Ctrl Delay 164.7

HCM 6th LOS F

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

6: SR 31 & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 			 			 	
Traffic Volume (veh/h)	263	2429	88	123	1155	434	127	103	299	621	77	238
Future Volume (veh/h)	263	2429	88	123	1155	434	127	103	299	621	77	238
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	1811	1811	1811	1767	1767	1767	1870	1870	1870	1752	1752	1752
Adj Flow Rate, veh/h	277	2557	93	129	1216	0	121	126	315	712	0	251
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	9	9	9	2	2	2	10	10	10
Cap, veh/h	322	2522	783	155	1503		178	187	159	734	0	327
Arrive On Green	0.13	0.51	0.51	0.06	0.45	0.00	0.10	0.10	0.10	0.22	0.00	0.22
Sat Flow, veh/h	1725	4944	1535	1682	3357	1497	1781	1870	1585	3337	0	1485
Grp Volume(v), veh/h	277	2557	93	129	1216	0	121	126	315	712	0	251
Grp Sat Flow(s),veh/h/ln	1725	1648	1535	1682	1678	1497	1781	1870	1585	1668	0	1485
Q Serve(g_s), s	14.2	76.5	4.7	7.0	47.1	0.0	9.8	9.8	15.0	31.7	0.0	23.8
Cycle Q Clear(g_c), s	14.2	76.5	4.7	7.0	47.1	0.0	9.8	9.8	15.0	31.7	0.0	23.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	322	2522	783	155	1503		178	187	159	734	0	327
V/C Ratio(X)	0.86	1.01	0.12	0.83	0.81		0.68	0.67	1.99	0.97	0.00	0.77
Avail Cap(c_a), veh/h	335	2522	783	155	1503		178	187	159	734	0	327
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	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.1	36.8	19.2	40.2	35.9	0.0	65.2	65.1	67.5	58.0	0.0	54.9
Incr Delay (d2), s/veh	19.4	21.5	0.3	30.8	4.8	0.0	10.0	9.1	466.1	26.0	0.0	11.2
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	7.4	33.9	1.7	4.1	19.6	0.0	4.9	5.1	26.5	15.8	0.0	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.4	58.2	19.5	71.0	40.7	0.0	75.1	74.3	533.6	84.0	0.0	66.1
LnGrp LOS	D	F	B	E	D		E	E	F	F	A	E
Approach Vol, veh/h		2927			1345			562			963	
Approach Delay, s/veh		56.6			43.6			331.9			79.3	
Approach LOS		E			D			F			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	22.8	71.2		19.0	13.5	80.5		37.0				
Change Period (Y+Rc), s	6.5	7.4		6.4	6.5	7.4		6.4				
Max Green Setting (Gmax), s	17.5	62.6		12.6	7.0	73.1		30.6				
Max Q Clear Time (g_c+I1), s	16.2	49.1		17.0	9.0	78.5		33.7				
Green Ext Time (p_c), s	0.1	9.8		0.0	0.0	0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				84.1								
HCM 6th LOS				F								
Notes												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

1: River Hall Parkway & SR 80

							
Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	2	827	525	104	1591	1100	201
Future Volume (veh/h)	2	827	525	104	1591	1100	201
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		1648	1826	1841	1796	1856	1870
Adj Flow Rate, veh/h		899	571	113	1729	1196	218
Peak Hour Factor		0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %		17	5	4	7	3	2
Cap, veh/h		1647	814	187	2105	1086	502
Arrive On Green		0.53	0.53	0.06	0.62	0.32	0.32
Sat Flow, veh/h		3214	1547	1753	3503	3428	1585
Grp Volume(v), veh/h		899	571	113	1729	1196	218
Grp Sat Flow(s),veh/h/ln		1566	1547	1753	1706	1714	1585
Q Serve(g_s), s		22.9	33.3	2.7	47.2	38.0	13.1
Cycle Q Clear(g_c), s		22.9	33.3	2.7	47.2	38.0	13.1
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1647	814	187	2105	1086	502
V/C Ratio(X)		0.55	0.70	0.60	0.82	1.10	0.43
Avail Cap(c_a), veh/h		1647	814	189	2105	1086	502
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		18.9	21.4	28.6	17.9	41.0	32.5
Incr Delay (d2), s/veh		1.3	5.0	5.3	3.8	59.5	0.6
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		7.7	11.8	2.1	16.4	24.8	5.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		20.2	26.4	33.9	21.6	100.5	33.1
LnGrp LOS		C	C	C	C	F	C
Approach Vol, veh/h		1470			1842	1414	
Approach Delay, s/veh		22.6			22.4	90.1	
Approach LOS		C			C	F	
Timer - Assigned Phs	1	2			6	8	
Phs Duration (G+Y+Rc), s	10.9	67.1			78.0	42.0	
Change Period (Y+Rc), s	6.0	6.0			6.0	6.0	
Max Green Setting (Gmax), s	5.0	61.0			61.0	36.0	
Max Q Clear Time (g_c+I1), s	4.7	35.3			49.2	40.0	
Green Ext Time (p_c), s	0.0	8.6			8.2	0.0	
Intersection Summary							
HCM 6th Ctrl Delay			42.7				
HCM 6th LOS			D				
Notes							
User approved ignoring U-Turning movement.							

HCM 6th Signalized Intersection Summary

1: River Hall Parkway & SR 80

							
Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	3	1725	1424	250	1017	840	168
Future Volume (veh/h)	3	1725	1424	250	1017	840	168
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		1811	1870	1870	1781	1826	1856
Adj Flow Rate, veh/h		1797	1483	260	1059	875	175
Peak Hour Factor		0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %		6	2	2	8	5	3
Cap, veh/h		1837	1310	216	2213	988	460
Arrive On Green		0.53	0.53	0.09	0.65	0.29	0.29
Sat Flow, veh/h		3532	1585	1781	3474	3374	1572
Grp Volume(v), veh/h		1797	1483	260	1059	875	175
Grp Sat Flow(s),veh/h/ln		1721	1585	1781	1692	1687	1572
Q Serve(g_s), s		76.4	80.1	14.0	23.6	37.2	13.3
Cycle Q Clear(g_c), s		76.4	80.1	14.0	23.6	37.2	13.3
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1837	1310	216	2213	988	460
V/C Ratio(X)		0.98	1.13	1.21	0.48	0.89	0.38
Avail Cap(c_a), veh/h		1837	1310	216	2213	1102	514
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		34.1	9.2	57.7	13.1	50.7	42.2
Incr Delay (d2), s/veh		16.4	69.4	127.8	0.7	8.3	0.5
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		33.2	74.5	15.7	8.3	16.8	5.3
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		50.5	78.6	185.5	13.8	58.9	42.7
LnGrp LOS		D	F	F	B	E	D
Approach Vol, veh/h	3280				1319	1050	
Approach Delay, s/veh	63.2				47.7	56.2	
Approach LOS	E				D	E	
Timer - Assigned Phs	1	2			6		8
Phs Duration (G+Y+Rc), s	18.0	84.1			102.1		47.9
Change Period (Y+Rc), s	6.0	6.0			6.0		6.0
Max Green Setting (Gmax), s	12.0	73.0			80.0		47.0
Max Q Clear Time (g_c+I1), s	16.0	82.1			25.6		39.2
Green Ext Time (p_c), s	0.0	0.0			8.2		2.8
Intersection Summary							
HCM 6th Ctrl Delay			58.3				
HCM 6th LOS			E				
Notes							
User approved pedestrian interval to be less than phase max green.							
User approved ignoring U-Turning movement.							

HCM 6th Signalized Intersection Summary

5: Buckingham Rd & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	946	229	436	1755	43	292	45	286	82	44	86
Future Volume (veh/h)	36	946	229	436	1755	43	292	45	286	82	44	86
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	1648	1648	1648	1737	1737	1737	1767	1767	1767	1796	1796	1796
Adj Flow Rate, veh/h	40	1051	0	484	1950	0	324	50	318	91	49	96
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	17	17	17	11	11	11	9	9	9	7	7	7
Cap, veh/h	94	1200		455	1976		338	28	176	188	150	127
Arrive On Green	0.06	0.38	0.00	0.28	0.60	0.00	0.13	0.13	0.13	0.08	0.08	0.08
Sat Flow, veh/h	1570	3131	1397	1654	3300	1472	1682	208	1321	1711	1796	1522
Grp Volume(v), veh/h	40	1051	0	484	1950	0	324	0	368	91	49	96
Grp Sat Flow(s),veh/h/ln	1570	1566	1397	1654	1650	1472	1682	0	1529	1711	1796	1522
Q Serve(g_s), s	3.0	37.4	0.0	33.0	69.5	0.0	15.0	0.0	16.0	5.7	3.1	7.4
Cycle Q Clear(g_c), s	3.0	37.4	0.0	33.0	69.5	0.0	15.0	0.0	16.0	5.7	3.1	7.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.86	1.00		1.00
Lane Grp Cap(c), veh/h	94	1200		455	1976		338	0	204	188	150	127
V/C Ratio(X)	0.43	0.88		1.06	0.99		0.96	0.00	1.81	0.48	0.33	0.76
Avail Cap(c_a), veh/h	118	1200		455	1976		338	0	204	188	150	127
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	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.4	34.3	0.0	43.5	23.6	0.0	46.6	0.0	52.0	45.3	51.8	53.8
Incr Delay (d2), s/veh	3.1	9.1	0.0	60.2	17.4	0.0	38.0	0.0	381.2	1.9	1.8	24.0
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	1.2	14.9	0.0	20.5	28.2	0.0	6.2	0.0	27.5	2.5	1.4	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.5	43.4	0.0	103.7	41.0	0.0	84.6	0.0	433.2	47.2	53.6	77.8
LnGrp LOS	E	D		F	D		F	A	F	D	D	E
Approach Vol, veh/h		1091			2434			692			236	
Approach Delay, s/veh		43.9			53.5			270.0			61.0	
Approach LOS		D			D			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	75.8	13.0	20.0	37.0	50.0	19.0	14.0				
Change Period (Y+Rc), s	6.0	7.0	6.0	6.0	6.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	7.0	67.0	7.0	14.0	31.0	43.0	13.0	8.0				
Max Q Clear Time (g_c+l1), s	5.0	71.5	7.7	18.0	35.0	39.4	17.0	9.4				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay 85.2

HCM 6th LOS F

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

5: Buckingham Rd & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	2412	345	354	1241	34	335	98	514	145	117	74
Future Volume (veh/h)	80	2412	345	354	1241	34	335	98	514	145	117	74
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	1811	1811	1811	1752	1752	1752	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	82	2487	0	365	1279	0	345	101	530	149	121	76
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	6	6	6	10	10	10	4	4	4	4	4	4
Cap, veh/h	123	1721		256	1937		340	46	242	153	172	146
Arrive On Green	0.07	0.50	0.00	0.15	0.58	0.00	0.15	0.18	0.18	0.06	0.09	0.09
Sat Flow, veh/h	1725	3441	1535	1668	3328	1485	1753	256	1343	1753	1841	1560
Grp Volume(v), veh/h	82	2487	0	365	1279	0	345	0	631	149	121	76
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1668	1664	1485	1753	0	1599	1753	1841	1560
Q Serve(g_s), s	7.0	75.0	0.0	23.0	39.1	0.0	22.0	0.0	27.0	9.0	9.6	7.0
Cycle Q Clear(g_c), s	7.0	75.0	0.0	23.0	39.1	0.0	22.0	0.0	27.0	9.0	9.6	7.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.84	1.00		1.00
Lane Grp Cap(c), veh/h	123	1721		256	1937		340	0	288	153	172	146
V/C Ratio(X)	0.67	1.45		1.43	0.66		1.02	0.00	2.19	0.97	0.70	0.52
Avail Cap(c_a), veh/h	149	1721		256	1937		340	0	288	153	172	146
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	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.9	37.5	0.0	63.5	21.3	0.0	54.3	0.0	61.5	61.9	66.0	64.8
Incr Delay (d2), s/veh	8.1	203.8	0.0	213.2	1.8	0.0	52.9	0.0	547.8	64.3	13.4	4.5
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	3.3	78.4	0.0	24.7	14.9	0.0	7.2	0.0	54.5	4.0	5.1	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.1	241.3	0.0	276.7	23.1	0.0	107.3	0.0	609.3	126.2	79.4	69.3
LnGrp LOS	E	F		F	C		F	A	F	F	E	E
Approach Vol, veh/h		2569			1644			976			346	
Approach Delay, s/veh		236.0			79.4			431.9			97.3	
Approach LOS		F			E			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.7	91.3	13.0	31.0	27.0	79.0	26.0	18.0				
Change Period (Y+Rc), s	6.0	7.0	6.0	6.0	6.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	11.0	82.0	7.0	25.0	21.0	72.0	20.0	12.0				
Max Q Clear Time (g_c+I1), s	9.0	41.1	11.0	29.0	25.0	77.0	24.0	11.6				
Green Ext Time (p_c), s	0.0	22.3	0.0	0.0	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			215.4									
HCM 6th LOS			F									
Notes												
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

6: SR 31 & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 						 	
Traffic Volume (veh/h)	152	708	40	135	2548	544	92	24	44	325	20	279
Future Volume (veh/h)	152	708	40	135	2548	544	92	24	44	325	20	279
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	1589	1589	1589	1781	1781	1781	1678	1678	1678	1648	1648	1648
Adj Flow Rate, veh/h	171	796	45	152	2863	0	65	80	49	381	0	313
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, %	21	21	21	8	8	8	15	15	15	17	17	17
Cap, veh/h	180	2571	798	501	2005		125	131	111	366	0	163
Arrive On Green	0.08	0.59	0.59	0.08	0.59	0.00	0.08	0.08	0.08	0.12	0.00	0.12
Sat Flow, veh/h	1513	4337	1346	1697	3385	1510	1598	1678	1422	3139	0	1397
Grp Volume(v), veh/h	171	796	45	152	2863	0	65	80	49	381	0	313
Grp Sat Flow(s),veh/h/ln	1513	1446	1346	1697	1692	1510	1598	1678	1422	1570	0	1397
Q Serve(g_s), s	8.7	11.0	1.7	4.0	71.1	0.0	4.7	5.5	3.9	14.0	0.0	14.0
Cycle Q Clear(g_c), s	8.7	11.0	1.7	4.0	71.1	0.0	4.7	5.5	3.9	14.0	0.0	14.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	180	2571	798	501	2005		125	131	111	366	0	163
V/C Ratio(X)	0.95	0.31	0.06	0.30	1.43		0.52	0.61	0.44	1.04	0.00	1.92
Avail Cap(c_a), veh/h	180	2571	798	506	2005		125	131	111	366	0	163
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	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.2	12.2	10.3	8.1	24.4	0.0	53.1	53.5	52.8	53.0	0.0	53.0
Incr Delay (d2), s/veh	52.9	0.3	0.1	0.3	195.4	0.0	3.8	7.9	2.7	57.9	0.0	436.3
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	7.6	3.3	0.5	1.3	79.0	0.0	2.0	2.6	1.5	8.4	0.0	24.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	92.1	12.5	10.4	8.4	219.8	0.0	56.9	61.4	55.5	110.9	0.0	489.3
LnGrp LOS	F	B	B	A	F		E	E	E	F	A	F
Approach Vol, veh/h		1012			3015			194			694	
Approach Delay, s/veh		25.8			209.2			58.4			281.6	
Approach LOS		C			F			E			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.5	75.1		13.4	13.5	75.1		18.0				
Change Period (Y+Rc), s	6.5	7.4		6.4	6.5	7.4		6.4				
Max Green Setting (Gmax), s	7.0	67.7		7.0	7.3	67.4		11.6				
Max Q Clear Time (g_c+I1), s	10.7	73.1		7.5	6.0	13.0		16.0				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	13.2		0.0				

Intersection Summary

HCM 6th Ctrl Delay 175.7

HCM 6th LOS F

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

6: SR 31 & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	263	2522	88	123	1202	459	127	103	299	672	77	238
Future Volume (veh/h)	263	2522	88	123	1202	459	127	103	299	672	77	238
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	1811	1811	1811	1767	1767	1767	1870	1870	1870	1752	1752	1752
Adj Flow Rate, veh/h	277	2655	93	129	1265	0	121	126	315	765	0	251
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	9	9	9	2	2	2	10	10	10
Cap, veh/h	320	2492	774	155	1439		173	182	154	763	0	339
Arrive On Green	0.14	0.50	0.50	0.06	0.43	0.00	0.10	0.10	0.10	0.23	0.00	0.23
Sat Flow, veh/h	1725	4944	1535	1682	3357	1497	1781	1870	1585	3337	0	1485
Grp Volume(v), veh/h	277	2655	93	129	1265	0	121	126	315	765	0	251
Grp Sat Flow(s),veh/h/ln	1725	1648	1535	1682	1678	1497	1781	1870	1585	1668	0	1485
Q Serve(g_s), s	16.4	75.6	4.8	7.0	51.8	0.0	9.9	9.8	14.6	34.3	0.0	23.5
Cycle Q Clear(g_c), s	16.4	75.6	4.8	7.0	51.8	0.0	9.9	9.8	14.6	34.3	0.0	23.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	320	2492	774	155	1439		173	182	154	763	0	339
V/C Ratio(X)	0.87	1.07	0.12	0.83	0.88		0.70	0.69	2.04	1.00	0.00	0.74
Avail Cap(c_a), veh/h	320	2492	774	155	1439		173	182	154	763	0	339
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	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.0	37.2	19.6	39.1	39.3	0.0	65.6	65.5	67.7	57.8	0.0	53.7
Incr Delay (d2), s/veh	21.2	38.5	0.3	30.8	7.9	0.0	11.6	10.7	490.6	33.2	0.0	8.9
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	6.5	37.5	1.8	3.8	22.1	0.0	5.0	5.2	26.9	17.8	0.0	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.3	75.7	20.0	69.9	47.2	0.0	77.2	76.2	558.3	91.1	0.0	62.6
LnGrp LOS	E	F	B	E	D		E	E	F	F	A	E
Approach Vol, veh/h		3025			1394			562			1016	
Approach Delay, s/veh		72.7			49.3			346.7			84.0	
Approach LOS		E			D			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	24.8	68.3		18.6	13.5	79.6		38.3				
Change Period (Y+Rc), s	6.5	7.4		6.4	6.5	7.4		6.4				
Max Green Setting (Gmax), s	18.3	60.9		12.2	7.0	72.2		31.9				
Max Q Clear Time (g_c+I1), s	18.4	53.8		16.6	9.0	77.6		36.3				
Green Ext Time (p_c), s	0.0	5.7		0.0	0.0	0.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay 94.9

HCM 6th LOS F

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

5: Buckingham Rd & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	929	220	399	1637	40	281	44	282	79	43	83
Future Volume (veh/h)	35	929	220	399	1637	40	281	44	282	79	43	83
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	1648	1648	1648	1737	1737	1737	1767	1767	1767	1796	1796	1796
Adj Flow Rate, veh/h	39	1032	0	443	1819	0	312	49	0	88	48	92
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	17	17	17	11	11	11	9	9	9	7	7	7
Cap, veh/h	104	1451		567	1893		326	205		144	180	152
Arrive On Green	0.07	0.46	0.00	0.18	0.57	0.00	0.10	0.12	0.00	0.08	0.10	0.10
Sat Flow, veh/h	1570	3131	1397	3209	3300	1472	3264	1767	1497	1711	1796	1522
Grp Volume(v), veh/h	39	1032	0	443	1819	0	312	49	0	88	48	92
Grp Sat Flow(s), veh/h/ln	1570	1566	1397	1605	1650	1472	1632	1767	1497	1711	1796	1522
Q Serve(g_s), s	2.4	26.4	0.0	13.2	52.3	0.0	9.5	2.5	0.0	5.0	2.5	5.8
Cycle Q Clear(g_c), s	2.4	26.4	0.0	13.2	52.3	0.0	9.5	2.5	0.0	5.0	2.5	5.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	104	1451		567	1893		326	205		144	180	152
V/C Ratio(X)	0.37	0.71		0.78	0.96		0.96	0.24		0.61	0.27	0.60
Avail Cap(c_a), veh/h	141	1451		642	1893		326	205		154	180	152
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.7	21.5	0.0	39.3	20.2	0.0	44.8	40.2	0.0	44.2	41.6	43.1
Incr Delay (d2), s/veh	2.2	3.0	0.0	5.5	13.3	0.0	38.1	0.8	0.0	6.3	1.1	7.8
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	1.0	9.3	0.0	5.4	20.3	0.0	5.4	1.1	0.0	2.3	1.1	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.9	24.5	0.0	44.8	33.5	0.0	82.9	41.0	0.0	50.5	42.7	50.9
LnGrp LOS	D	C		D	C		F	D		D	D	D
Approach Vol, veh/h		1071	A		2262	A		361	A		228	
Approach Delay, s/veh		25.3			35.7			77.2			49.1	
Approach LOS		C			D			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	61.4	12.4	15.6	21.7	50.3	14.0	14.0				
Change Period (Y+Rc), s	6.0	7.0	6.0	6.0	6.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	7.0	52.0	7.0	9.0	18.0	41.0	8.0	8.0				
Max Q Clear Time (g_c+I1), s	4.4	54.3	7.0	4.5	15.2	28.4	11.5	7.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.1	0.5	8.2	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			37.5									
HCM 6th LOS			D									
Notes												
Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

5: Buckingham Rd & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	2296	340	330	1176	30	330	97	475	141	116	73
Future Volume (veh/h)	78	2296	340	330	1176	30	330	97	475	141	116	73
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	1811	1811	1811	1752	1752	1752	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	80	2367	0	340	1212	0	340	100	0	145	120	75
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	6	6	6	10	10	10	4	4	4	4	4	4
Cap, veh/h	115	2219		412	2348		283	102		146	102	87
Arrive On Green	0.07	0.64	0.00	0.13	0.71	0.00	0.08	0.06	0.00	0.08	0.06	0.06
Sat Flow, veh/h	1725	3441	1535	3237	3328	1485	3401	1841	1560	1753	1841	1560
Grp Volume(v), veh/h	80	2367	0	340	1212	0	340	100	0	145	120	75
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1618	1664	1485	1700	1841	1560	1753	1841	1560
Q Serve(g_s), s	8.2	116.1	0.0	18.4	30.4	0.0	15.0	9.8	0.0	14.9	10.0	8.6
Cycle Q Clear(g_c), s	8.2	116.1	0.0	18.4	30.4	0.0	15.0	9.8	0.0	14.9	10.0	8.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	115	2219		412	2348		283	102		146	102	87
V/C Ratio(X)	0.69	1.07		0.82	0.52		1.20	0.98		0.99	1.17	0.87
Avail Cap(c_a), veh/h	153	2219		485	2348		283	102		146	102	87
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	82.2	32.0	0.0	76.6	12.3	0.0	82.5	84.9	0.0	82.4	85.0	84.3
Incr Delay (d2), s/veh	8.4	39.8	0.0	9.7	0.8	0.0	118.7	81.8	0.0	72.1	143.0	56.3
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	3.9	56.7	0.0	8.2	10.9	0.0	11.2	6.9	0.0	9.6	8.8	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.5	71.8	0.0	86.2	13.1	0.0	201.2	166.7	0.0	154.5	228.0	140.6
LnGrp LOS	F	F		F	B		F	F		F	F	F
Approach Vol, veh/h		2447	A		1552	A		440	A		340	
Approach Delay, s/veh		72.4			29.1			193.4			177.4	
Approach LOS		E			C			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.0	131.0	19.0	14.0	26.9	120.1	19.0	14.0				
Change Period (Y+Rc), s	6.0	7.0	6.0	6.0	6.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	14.0	120.0	13.0	8.0	25.0	109.0	13.0	8.0				
Max Q Clear Time (g_c+I1), s	10.2	32.4	16.9	11.8	20.4	118.1	17.0	12.0				
Green Ext Time (p_c), s	0.0	27.4	0.0	0.0	0.5	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			77.0									
HCM 6th LOS			E									
Notes												
Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

6: SR 31 & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  					 		
Traffic Volume (veh/h)	157	736	41	140	2582	528	96	26	46	338	20	288
Future Volume (veh/h)	157	736	41	140	2582	528	96	26	46	338	20	288
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	1589	1589	1589	1781	1781	1781	1678	1678	1678	1648	1648	1648
Adj Flow Rate, veh/h	176	827	46	157	2901	0	108	29	0	380	22	324
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, %	21	21	21	8	8	8	15	15	15	17	17	17
Cap, veh/h	196	2772	861	488	2950		150	105		388	157	267
Arrive On Green	0.10	0.64	0.64	0.06	0.61	0.00	0.09	0.06	0.00	0.13	0.10	0.10
Sat Flow, veh/h	1513	4337	1346	1697	4863	1510	1598	1678	1422	3045	1648	1397
Grp Volume(v), veh/h	176	827	46	157	2901	0	108	29	0	380	22	324
Grp Sat Flow(s),veh/h/ln	1513	1446	1346	1697	1621	1510	1598	1678	1422	1522	1648	1397
Q Serve(g_s), s	12.3	12.8	1.9	5.1	87.2	0.0	9.9	2.5	0.0	18.7	1.8	14.3
Cycle Q Clear(g_c), s	12.3	12.8	1.9	5.1	87.2	0.0	9.9	2.5	0.0	18.7	1.8	14.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	196	2772	861	488	2950		150	105		388	157	267
V/C Ratio(X)	0.90	0.30	0.05	0.32	0.98		0.72	0.28		0.98	0.14	1.21
Avail Cap(c_a), veh/h	196	2772	861	490	2950		153	105		388	157	267
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.8	12.1	10.1	9.6	28.8	0.0	66.0	67.1	0.0	65.3	62.2	60.7
Incr Delay (d2), s/veh	37.8	0.3	0.1	0.4	13.1	0.0	14.6	1.4	0.0	40.4	0.6	125.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	4.0	0.6	1.8	34.3	0.0	4.6	1.1	0.0	9.3	0.8	19.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.6	12.3	10.2	9.9	41.8	0.0	80.6	68.5	0.0	105.6	62.8	186.0
LnGrp LOS	F	B	B	A	D		F	E		F	E	F
Approach Vol, veh/h		1049			3058	A		137	A		726	
Approach Delay, s/veh		25.4			40.2			78.1			140.2	
Approach LOS		C			D			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.5	95.0	23.1	13.4	13.6	99.9	18.2	18.3				
Change Period (Y+Rc), s	6.5	7.4	6.4	6.4	6.5	7.4	6.5	6.4				
Max Green Setting (Gmax), s	12.0	87.6	16.7	7.0	7.3	92.3	12.0	11.6				
Max Q Clear Time (g_c+I1), s	14.3	89.2	20.7	4.5	7.1	14.8	11.9	16.3				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	14.6	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay 52.7

HCM 6th LOS D

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

6: SR 31 & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  					 		
Traffic Volume (veh/h)	270	2521	90	127	1194	447	130	106	306	651	78	244
Future Volume (veh/h)	270	2521	90	127	1194	447	130	106	306	651	78	244
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	1811	1811	1811	1767	1767	1767	1870	1870	1870	1752	1752	1752
Adj Flow Rate, veh/h	284	2654	95	134	1257	0	137	112	0	685	82	257
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	9	9	9	2	2	2	10	10	10
Cap, veh/h	376	2709	841	164	2447		186	120		690	302	416
Arrive On Green	0.11	0.55	0.55	0.07	0.51	0.00	0.10	0.06	0.00	0.21	0.17	0.17
Sat Flow, veh/h	1725	4944	1535	1682	4823	1497	1781	1870	1585	3237	1752	1485
Grp Volume(v), veh/h	284	2654	95	134	1257	0	137	112	0	685	82	257
Grp Sat Flow(s),veh/h/ln	1725	1648	1535	1682	1608	1497	1781	1870	1585	1618	1752	1485
Q Serve(g_s), s	11.1	78.6	4.5	7.3	26.1	0.0	11.2	8.9	0.0	31.7	6.1	22.6
Cycle Q Clear(g_c), s	11.1	78.6	4.5	7.3	26.1	0.0	11.2	8.9	0.0	31.7	6.1	22.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	376	2709	841	164	2447		186	120		690	302	416
V/C Ratio(X)	0.76	0.98	0.11	0.82	0.51		0.74	0.94		0.99	0.27	0.62
Avail Cap(c_a), veh/h	527	2709	841	164	2447		242	120		690	302	416
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.5	33.1	16.3	43.2	24.6	0.0	65.2	69.9	0.0	58.9	53.9	47.0
Incr Delay (d2), s/veh	4.0	13.1	0.3	26.3	0.8	0.0	8.0	62.3	0.0	32.2	0.7	3.2
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	4.5	32.5	1.6	6.1	9.8	0.0	5.5	6.3	0.0	15.9	2.7	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.4	46.2	16.6	69.5	25.4	0.0	73.2	132.2	0.0	91.1	54.6	50.2
LnGrp LOS	C	D	B	E	C		E	F		F	D	D
Approach Vol, veh/h		3033			1391	A		249	A		1024	
Approach Delay, s/veh		43.2			29.6			99.8			77.9	
Approach LOS		D			C			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.3	80.1	36.0	13.6	14.2	86.2	19.8	29.8				
Change Period (Y+Rc), s	6.5	7.4	6.4	6.4	6.5	7.4	6.5	6.4				
Max Green Setting (Gmax), s	27.0	59.5	29.6	7.2	7.7	78.8	18.0	18.7				
Max Q Clear Time (g_c+I1), s	13.1	28.1	33.7	10.9	9.3	80.6	13.2	24.6				
Green Ext Time (p_c), s	0.7	18.0	0.0	0.0	0.0	0.0	0.1	0.0				

Intersection Summary

HCM 6th Ctrl Delay 48.6

HCM 6th LOS D

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX F
ITE TRIP GENERATION, 11th EDITION
DATA AND RATES

Land Use: 210

Single-Family Detached Housing

Description

A single-family detached housing site includes any single-family detached home on an individual lot. A typical site surveyed is a suburban subdivision.

Specialized Land Use

Data have been submitted for several single-family detached housing developments with homes that are commonly referred to as patio homes. A patio home is a detached housing unit that is located on a small lot with little (or no) front or back yard. In some subdivisions, communal maintenance of outside grounds is provided for the patio homes. The three patio home sites total 299 dwelling units with overall weighted average trip generation rates of 5.35 vehicle trips per dwelling unit for weekday, 0.26 for the AM adjacent street peak hour, and 0.47 for the PM adjacent street peak hour. These patio home rates based on a small sample of sites are lower than those for single-family detached housing (Land Use 210), lower than those for single-family attached housing (Land Use 251), and higher than those for senior adult housing -- single-family (Land Use 251). Further analysis of this housing type will be conducted in a future edition of *Trip Generation Manual*.

Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

For 30 of the study sites, data on the number of residents and number of household vehicles are available. The overall averages for the 30 sites are 3.6 residents per dwelling unit and 1.5 vehicles per dwelling unit.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Arizona, California, Connecticut, Delaware, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Minnesota, Montana, New Jersey, North Carolina, Ohio, Ontario (CAN), Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Vermont, Virginia, and West Virginia.

Source Numbers

100, 105, 114, 126, 157, 167, 177, 197, 207, 211, 217, 267, 275, 293, 300, 319, 320, 356, 357, 367, 384, 387, 407, 435, 522, 550, 552, 579, 598, 601, 603, 614, 637, 711, 716, 720, 728, 735, 868, 869, 903, 925, 936, 1005, 1007, 1008, 1010, 1033, 1066, 1077, 1078, 1079

Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 174

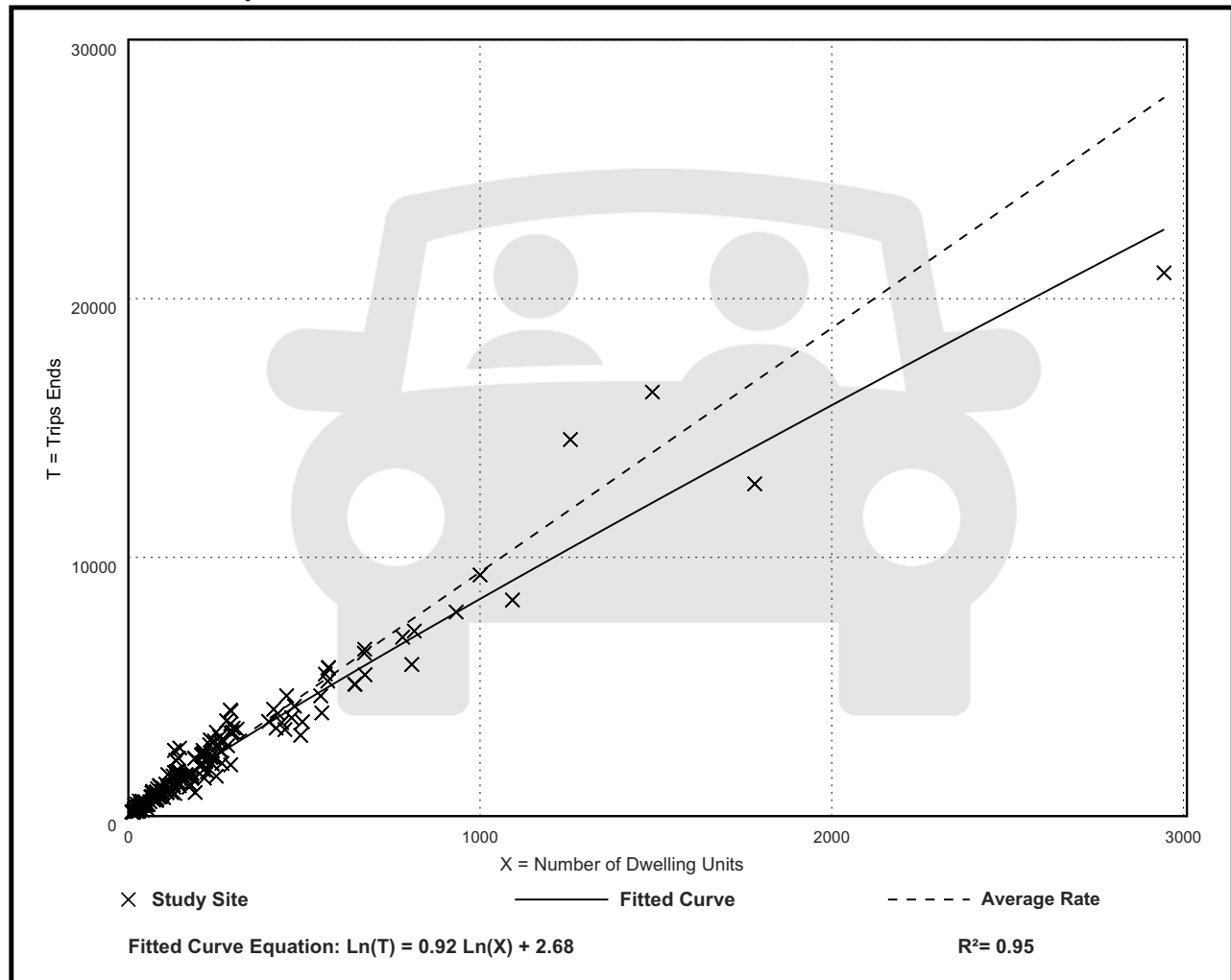
Avg. Num. of Dwelling Units: 246

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.43	4.45 - 22.61	2.13

Data Plot and Equation



Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 192

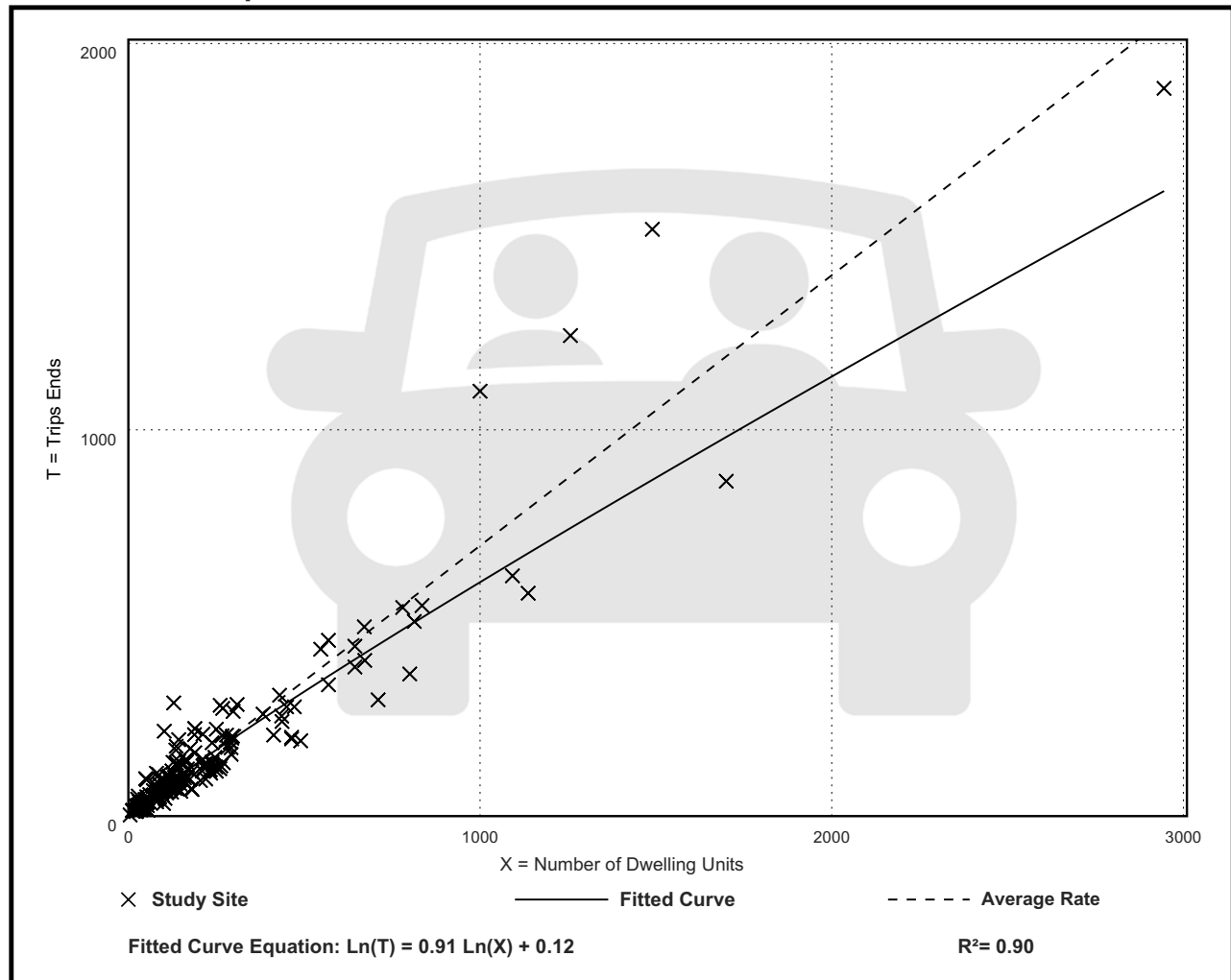
Avg. Num. of Dwelling Units: 226

Directional Distribution: 26% entering, 74% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.70	0.27 - 2.27	0.24

Data Plot and Equation



Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 208

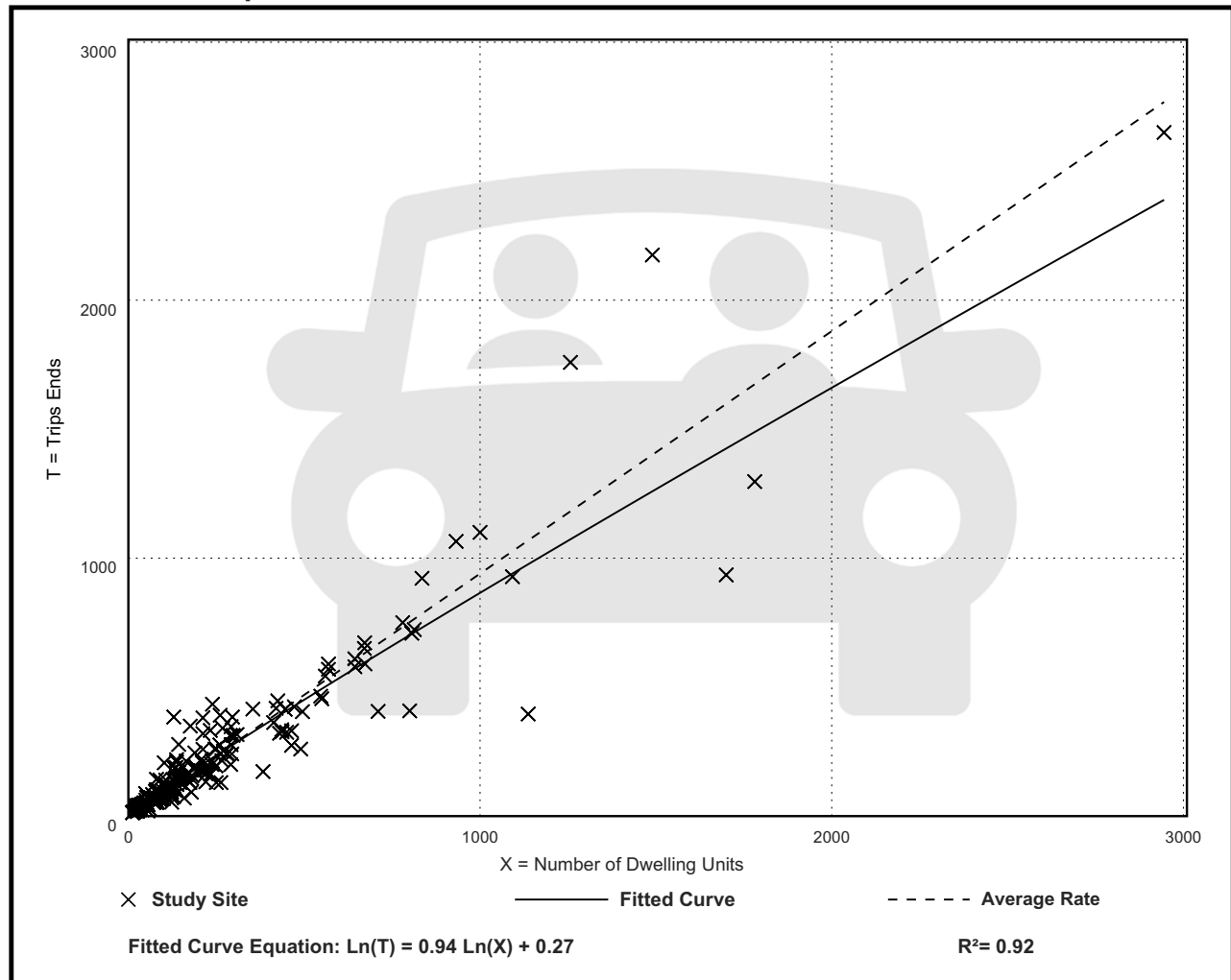
Avg. Num. of Dwelling Units: 248

Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.94	0.35 - 2.98	0.31

Data Plot and Equation



Land Use: 215

Single-Family Attached Housing

Description

Single-family attached housing includes any single-family housing unit that shares a wall with an adjoining dwelling unit, whether the walls are for living space, a vehicle garage, or storage space.

Additional Data

The database for this land use includes duplexes (defined as a single structure with two distinct dwelling units, typically joined side-by-side and each with at least one outside entrance) and townhouses/rowhouses (defined as a single structure with three or more distinct dwelling units, joined side-by-side in a row and each with an outside entrance).

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in British Columbia (CAN), California, Georgia, Illinois, Maryland, Massachusetts, Minnesota, New Jersey, Ontario (CAN), Oregon, Pennsylvania, South Dakota, Utah, Virginia, and Wisconsin.

Source Numbers

168, 204, 211, 237, 305, 306, 319, 321, 357, 390, 418, 525, 571, 583, 638, 735, 868, 869, 870, 896, 912, 959, 1009, 1046, 1056, 1058, 1077

Single-Family Attached Housing (215)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 22

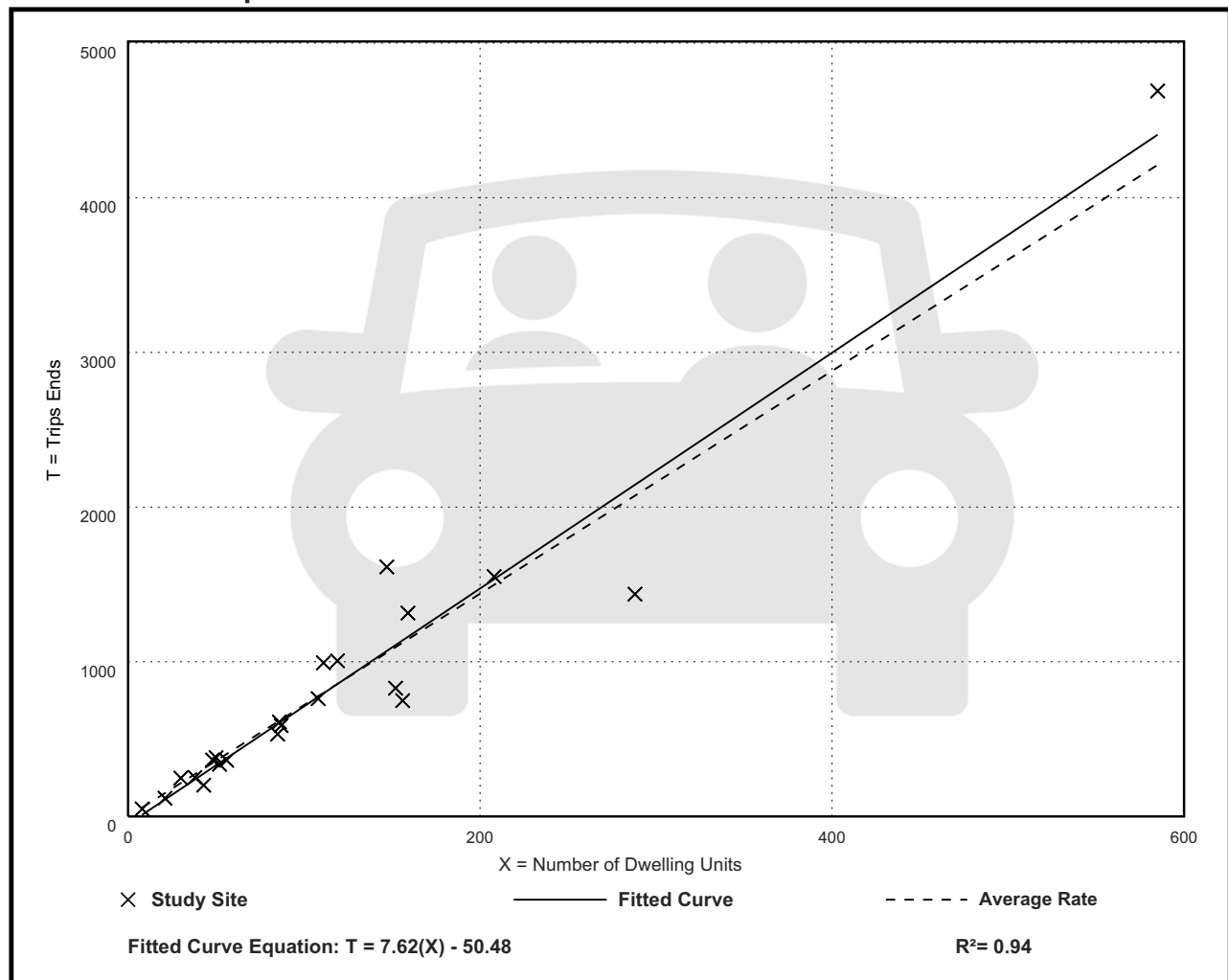
Avg. Num. of Dwelling Units: 120

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
7.20	4.70 - 10.97	1.61

Data Plot and Equation



Single-Family Attached Housing (215)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 46

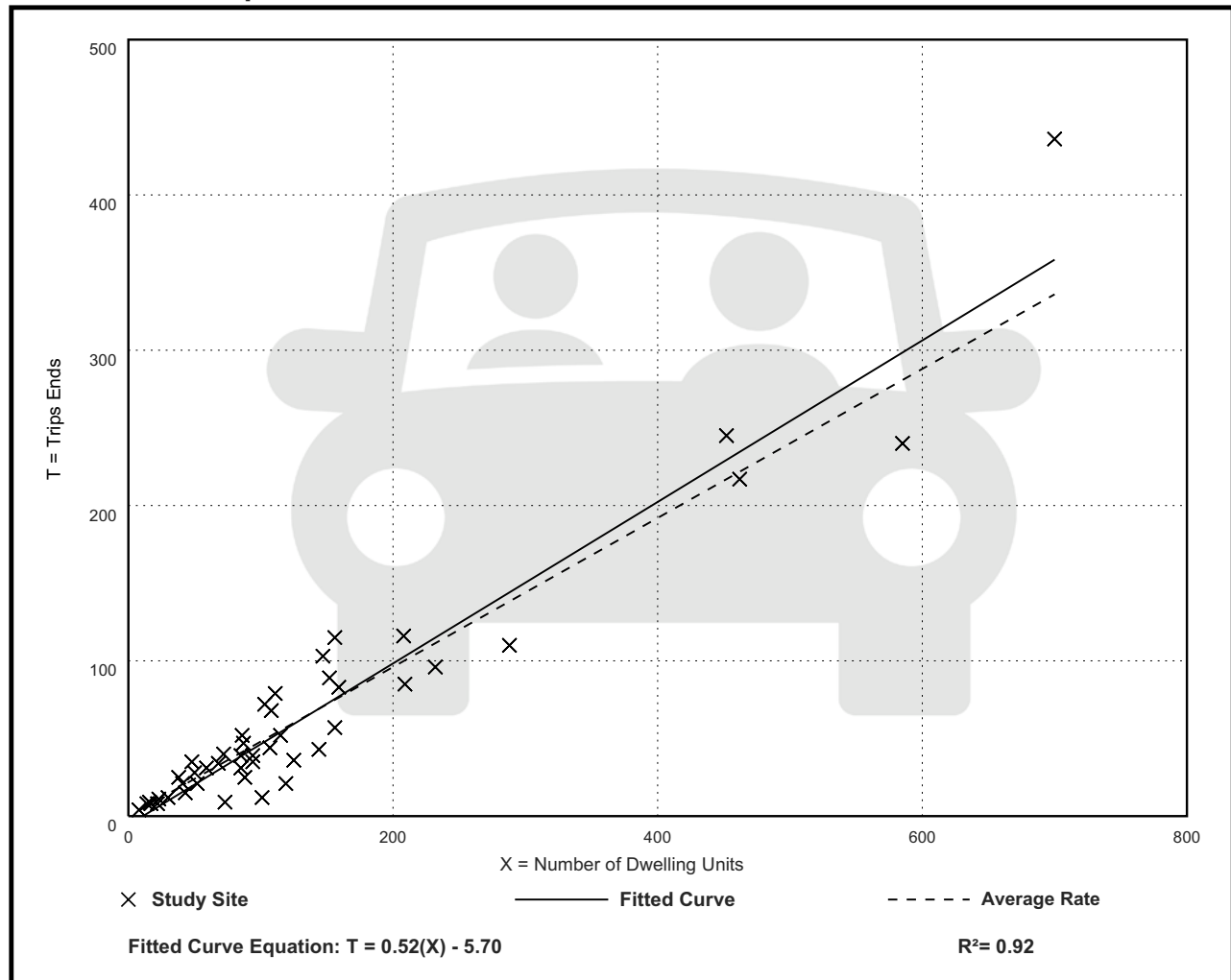
Avg. Num. of Dwelling Units: 135

Directional Distribution: 31% entering, 69% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.48	0.12 - 0.74	0.14

Data Plot and Equation



Single-Family Attached Housing (215)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 51

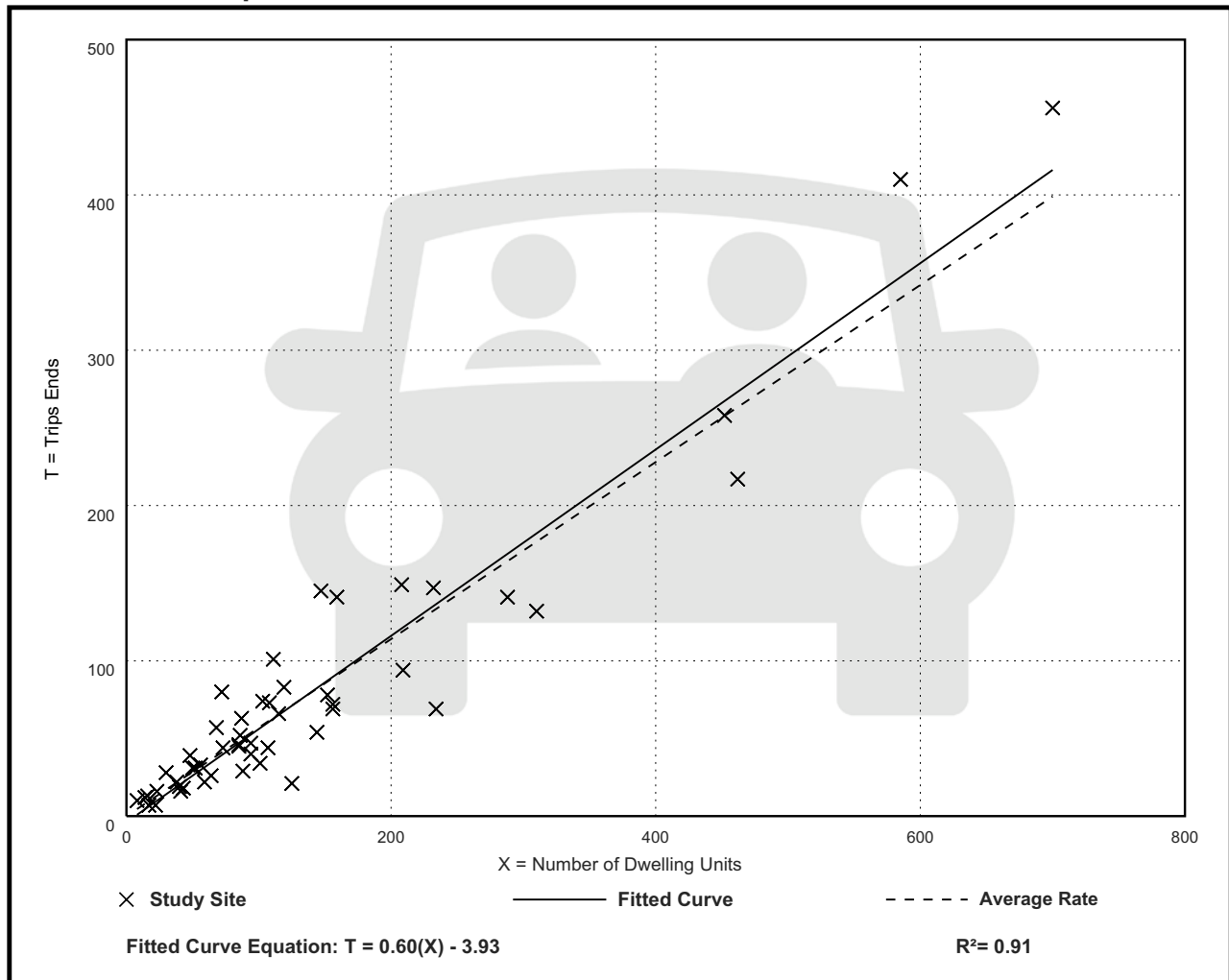
Avg. Num. of Dwelling Units: 136

Directional Distribution: 57% entering, 43% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.57	0.17 - 1.25	0.18

Data Plot and Equation



Land Use: 220

Multifamily Housing (Low-Rise)

Description

Low-rise multifamily housing includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have two or three floors (levels). Various configurations fit this description, including walkup apartment, mansion apartment, and stacked townhouse.

- A walkup apartment typically is two or three floors in height with dwelling units that are accessed by a single or multiple entrances with stairways and hallways.
- A mansion apartment is a single structure that contains several apartments within what appears to be a single-family dwelling unit.
- A fourplex is a single two-story structure with two matching dwelling units on the ground and second floors. Access to the individual units is typically internal to the structure and provided through a central entry and stairway.
- A stacked townhouse is designed to match the external appearance of a townhouse. But, unlike a townhouse dwelling unit that only shares walls with an adjoining unit, the stacked townhouse units share both floors and walls. Access to the individual units is typically internal to the structure and provided through a central entry and stairway.

Multifamily housing (mid-rise) (Land Use 221), multifamily housing (high-rise) (Land Use 222), affordable housing (Land Use 223), and off-campus student apartment (low-rise) (Land Use 225) are related land uses.

Land Use Subcategory

Data are presented for two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is $\frac{1}{2}$ mile or less.

Additional Data

For the three sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 2.72 residents per occupied dwelling unit.

For the two sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 96.2 percent of the total dwelling units were occupied.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip

generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

For the three sites for which data were provided for both occupied dwelling units and residents, there was an average of 2.72 residents per occupied dwelling unit.

It is expected that the number of bedrooms and number of residents are likely correlated to the trips generated by a residential site. To assist in future analysis, trip generation studies of all multifamily housing should attempt to obtain information on occupancy rate and on the mix of residential unit sizes (i.e., number of units by number of bedrooms at the site complex).

The sites were surveyed in the 1980s, the 1990s, the 2000s, the 2010s, and the 2020s in British Columbia (CAN), California, Delaware, Florida, Georgia, Illinois, Indiana, Maine, Maryland, Massachusetts, Minnesota, New Jersey, Ontario (CAN), Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, and Washington.

Source Numbers

188, 204, 237, 300, 305, 306, 320, 321, 357, 390, 412, 525, 530, 579, 583, 638, 864, 866, 896, 901, 903, 904, 936, 939, 944, 946, 947, 948, 963, 964, 966, 967, 1012, 1013, 1014, 1036, 1047, 1056, 1071, 1076

Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 22

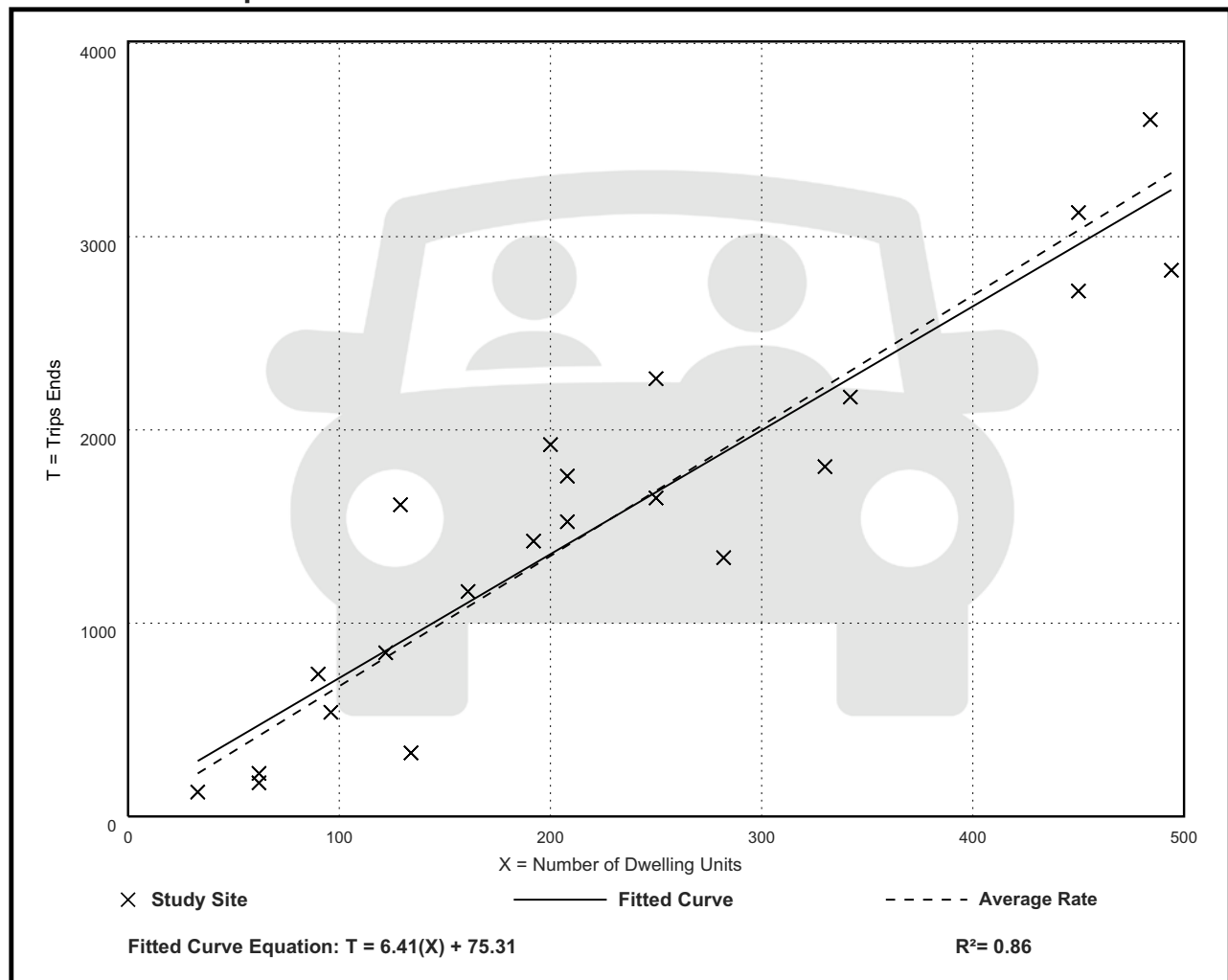
Avg. Num. of Dwelling Units: 229

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
6.74	2.46 - 12.50	1.79

Data Plot and Equation



Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 49

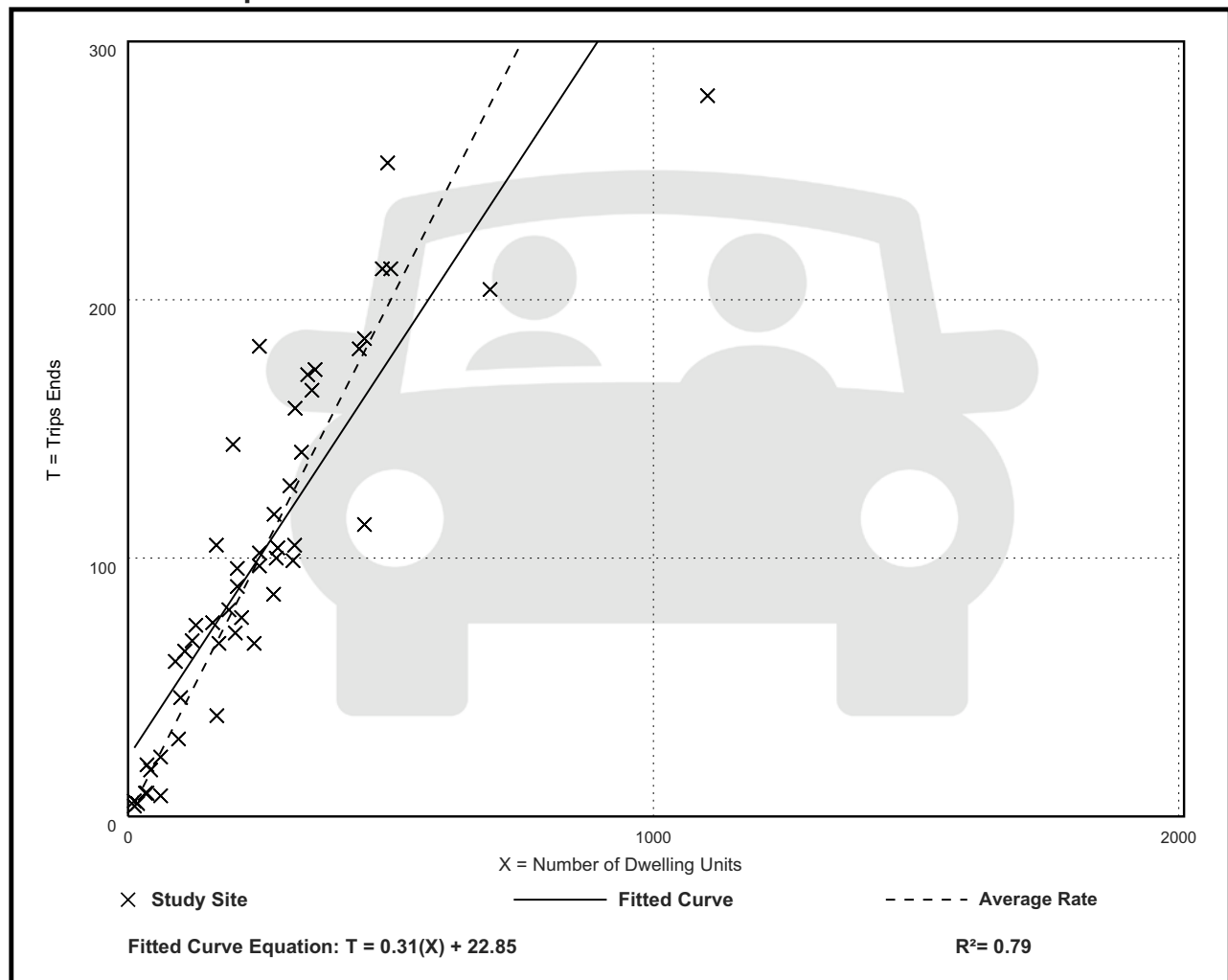
Avg. Num. of Dwelling Units: 249

Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.40	0.13 - 0.73	0.12

Data Plot and Equation



Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 59

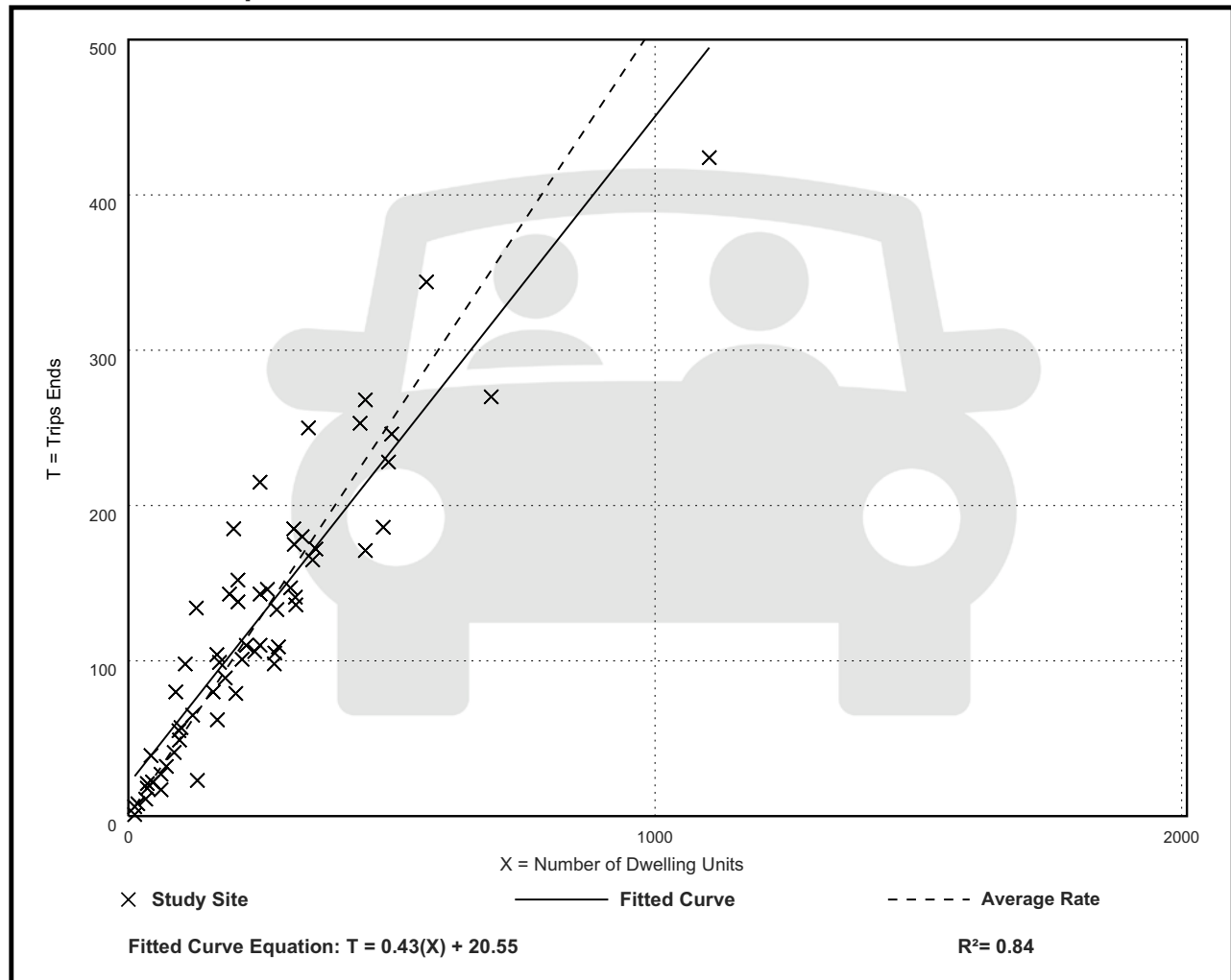
Avg. Num. of Dwelling Units: 241

Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.51	0.08 - 1.04	0.15

Data Plot and Equation



Land Use: 251

Senior Adult Housing—Single-Family

Description

Senior adult housing—single-family sites are independent living developments that are called various names including retirement communities, age-restricted housing, and active adult communities. The development has a specific age restriction for its residents, typically a minimum of 55 years of age for at least one resident of the household.

Residents in these communities are typically considered active and requiring little to no medical supervision. The percentage of retired residents varies by development. The development may include amenities such as a golf course, swimming pool, 24-hour security, transportation, and common recreational facilities. They generally lack centralized dining and on-site health facilities.

The dwelling units can be either detached or attached. The types of housing types represented by sites in the database include traditional single-family detached homes, patio homes, duplexes, and townhouses. Single-family attached housing includes any single-family housing unit that shares a wall with an adjoining dwelling unit, whether the walls are for living space, a vehicle garage, or storage space.

Senior adult housing—multifamily (Land Use 252), congregate care facility (Land Use 253), assisted living (Land Use 254), and continuing care retirement community (Land Use 255) are related land uses.

Additional Data

Caution should be used when applying trip rates for this land use as it may contain a wide variety of studies ranging from communities with very active, working residents to communities with older, retired residents. As more data become available, consideration will be given to future stratification of this land use.

Many factors affected the trip rates for detached senior adult housing. Factors such as the average age of residents, development location and size, affluence of residents, employment status, and vehicular access should be taken into consideration when conducting an analysis. Some developments were located within close proximity to medical facilities, restaurants, shopping centers, banks, and recreational activities.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

For the six sites for which data were provided for both occupied dwelling units and total dwelling units, an average of 98 percent of the units were occupied.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), California, Delaware, Florida, Maryland, New Jersey, New York, Pennsylvania, Virginia, and Washington.

Source Numbers

221, 289, 398, 421, 500, 550, 598, 601, 602, 629, 930, 1015, 1060, 1074

Senior Adult Housing - Single-Family (251)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 15

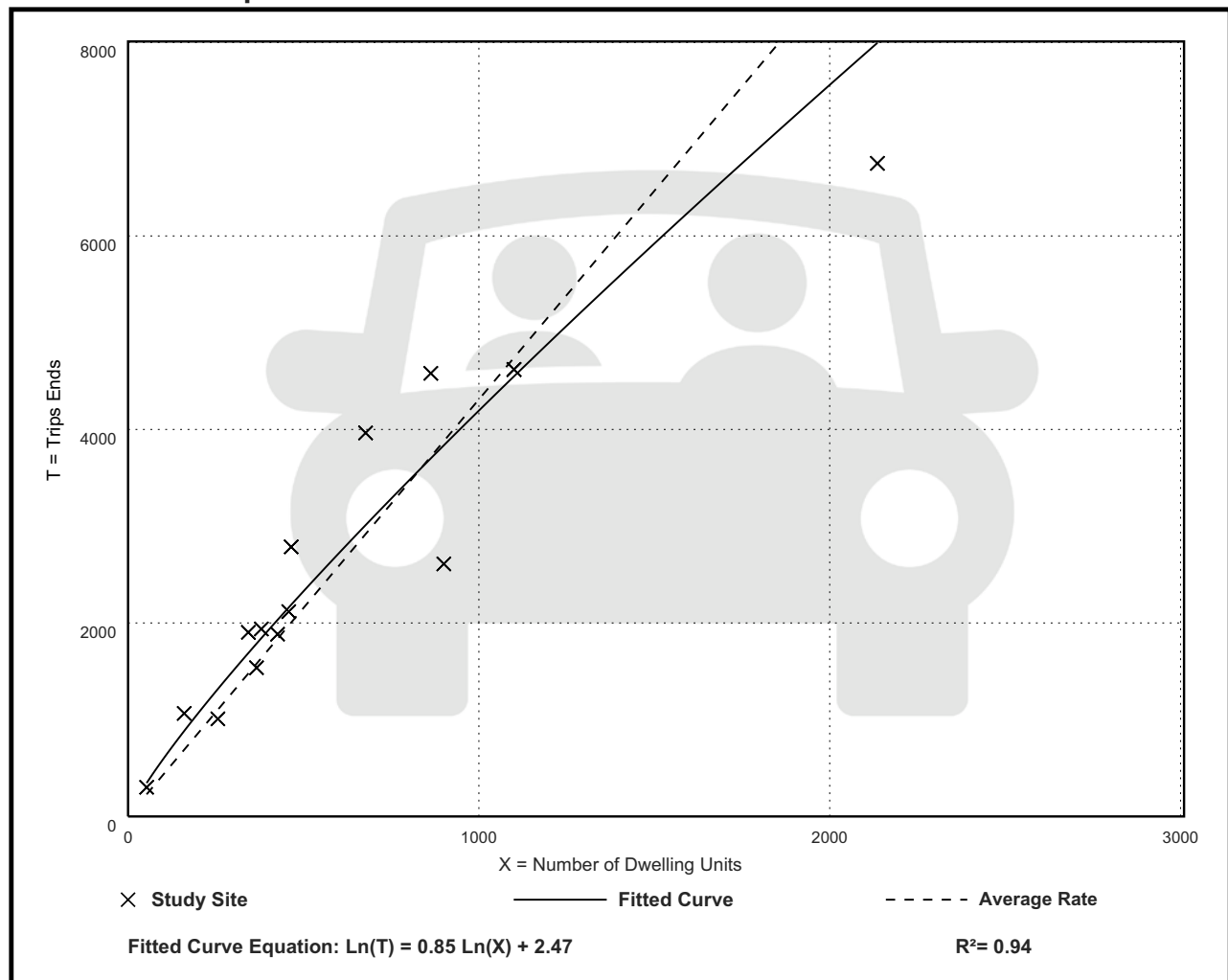
Avg. Num. of Dwelling Units: 646

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
4.31	2.90 - 6.66	1.07

Data Plot and Equation



Senior Adult Housing - Single-Family (251)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 34

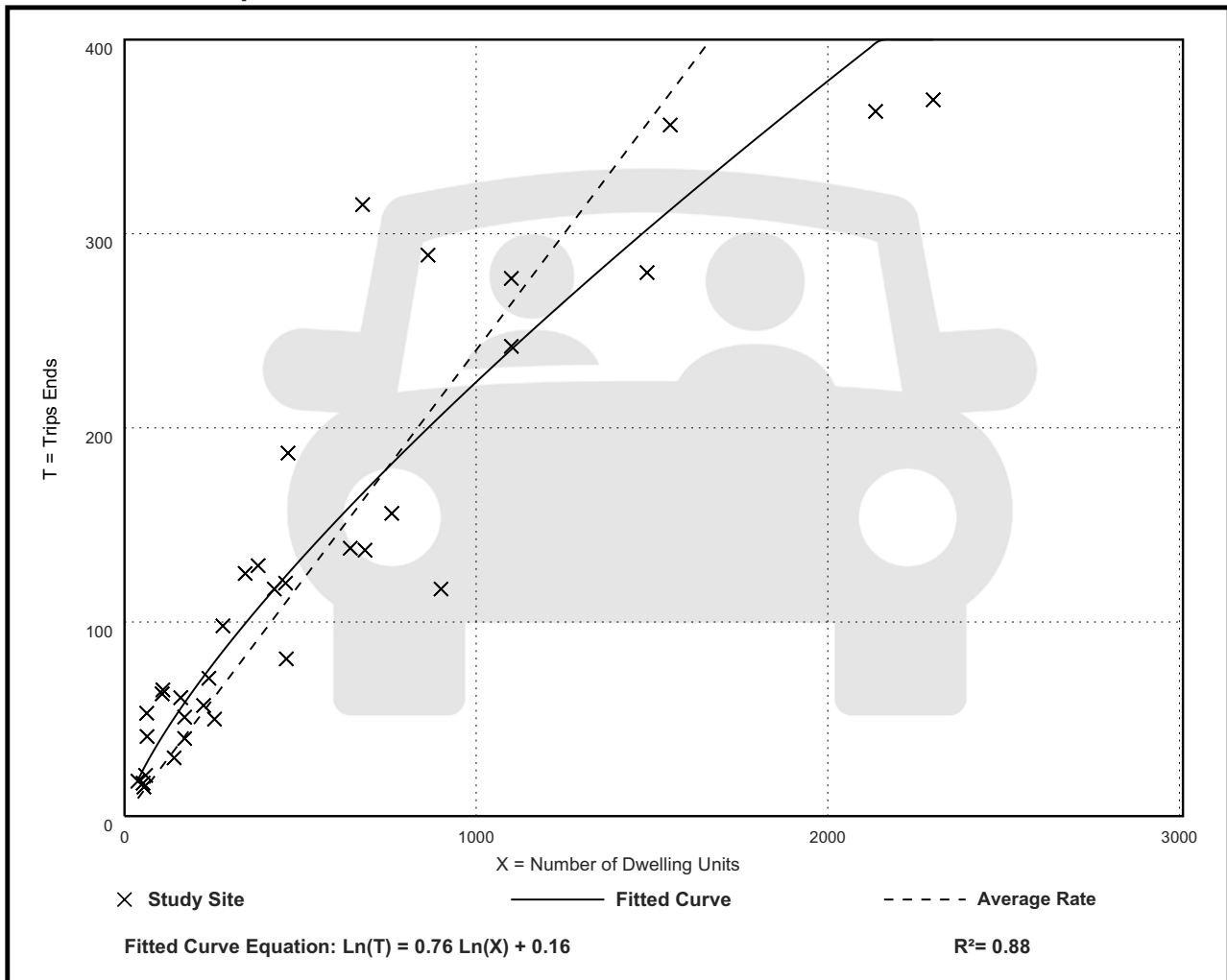
Avg. Num. of Dwelling Units: 557

Directional Distribution: 33% entering, 67% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.24	0.13 - 0.84	0.10

Data Plot and Equation



Senior Adult Housing - Single-Family (251)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 35

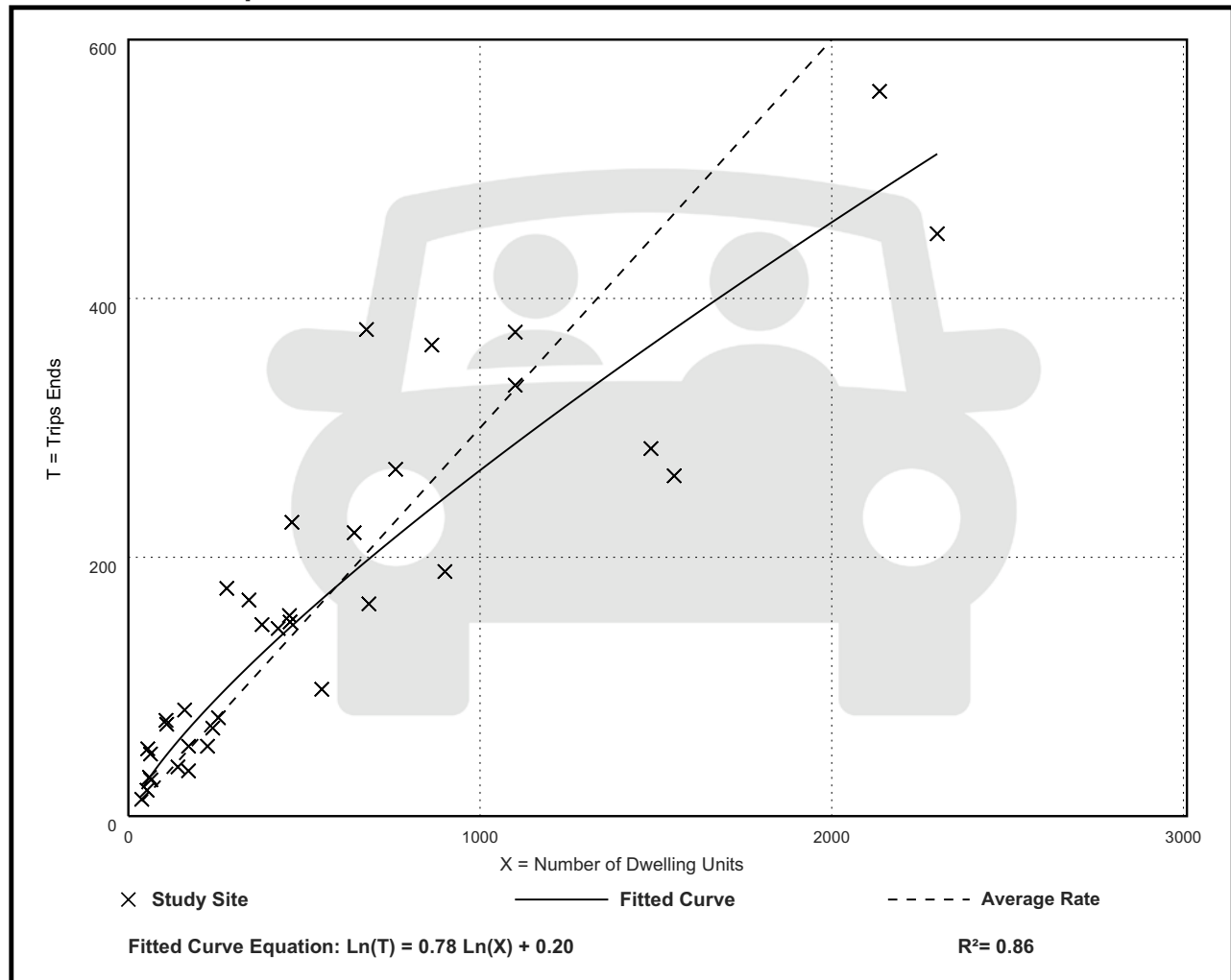
Avg. Num. of Dwelling Units: 556

Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.30	0.17 - 0.95	0.12

Data Plot and Equation



Land Use: 430 Golf Course

Description

A golf course is an expansive landscaped area that includes a series of golf holes, each consisting of a tee, fairway, and putting green. The site may have a driving range, clubhouse with a pro shop, restaurant, lounge, or banquet facility. Miniature golf course (Land Use 431), golf driving range (Land Use 432), and multipurpose recreational facility (Land Use 435) are related uses.

Additional Data

The golf courses in this land use are 9-, 18-, and 36-hole municipal courses.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), California, New Jersey, New York, Oregon, Pennsylvania, and Vermont.

Source Numbers

378, 407, 440, 629, 728, 925, 940, 970

Golf Course (430)

Vehicle Trip Ends vs: Holes

On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 4

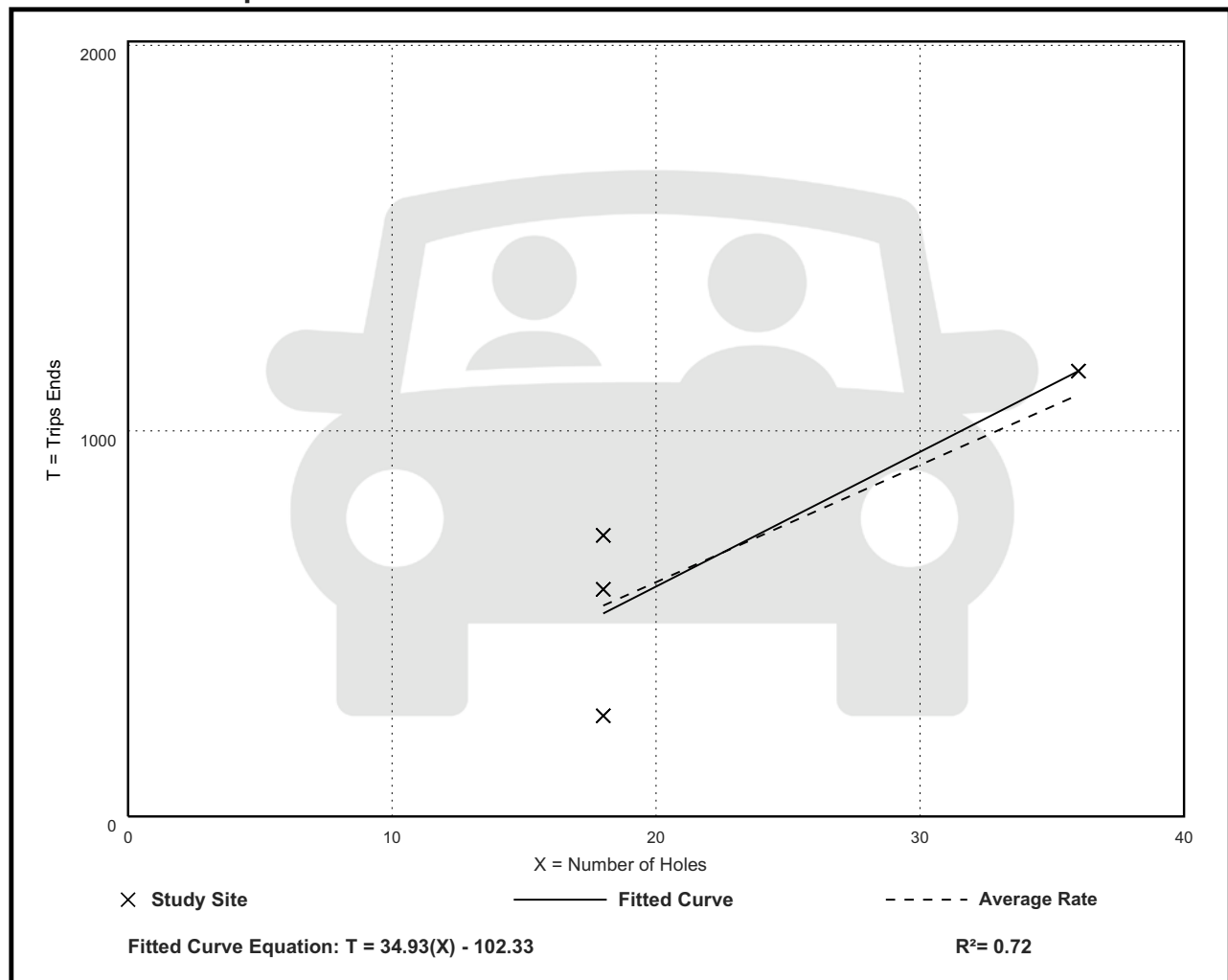
Avg. Num. of Holes: 23

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Hole

Average Rate	Range of Rates	Standard Deviation
30.38	14.50 - 40.50	9.88

Data Plot and Equation



Golf Course (430)

Vehicle Trip Ends vs: Holes

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 15

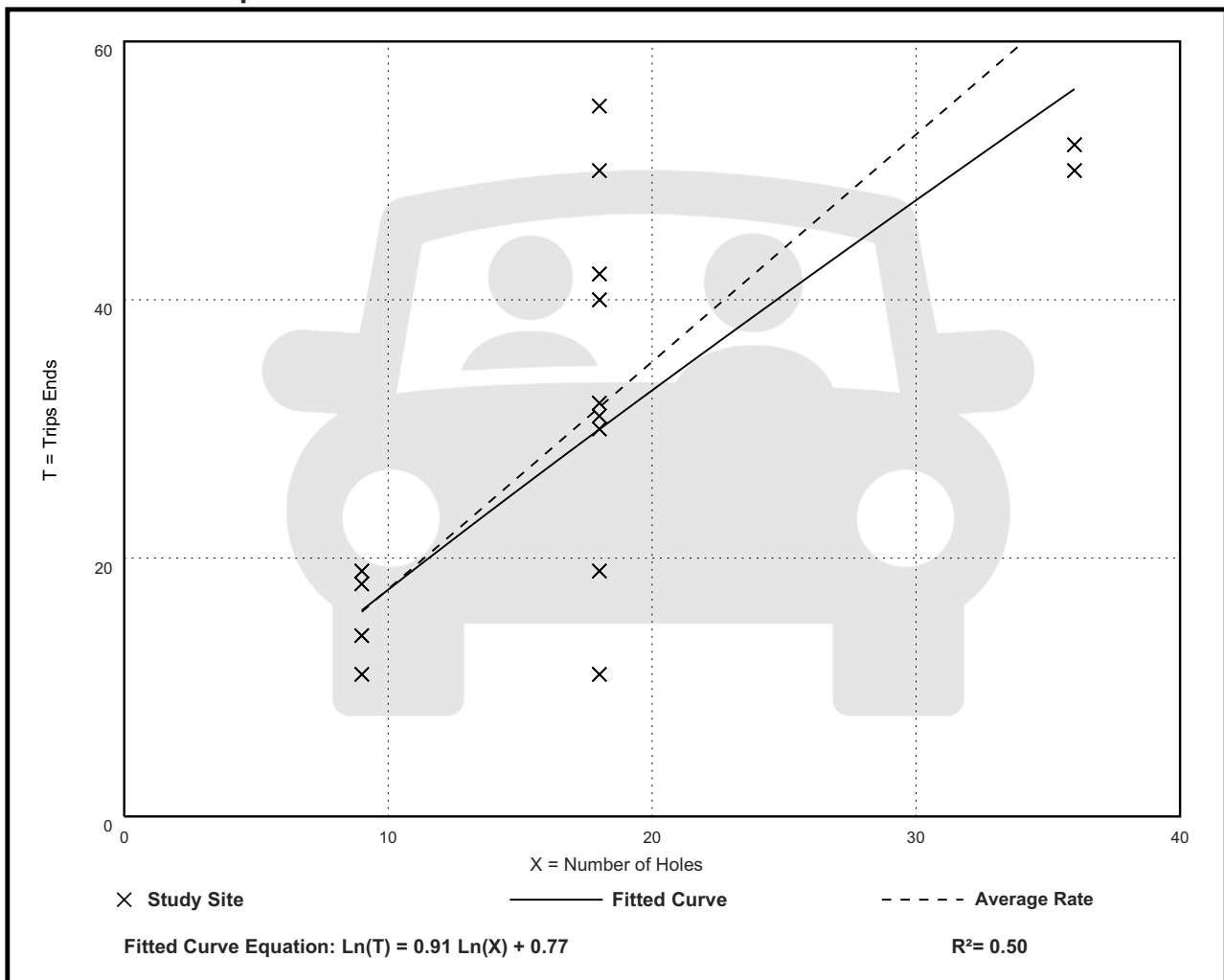
Avg. Num. of Holes: 18

Directional Distribution: 79% entering, 21% exiting

Vehicle Trip Generation per Hole

Average Rate	Range of Rates	Standard Deviation
1.76	0.61 - 3.06	0.64

Data Plot and Equation



Golf Course (430)

Vehicle Trip Ends vs: Holes

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 14

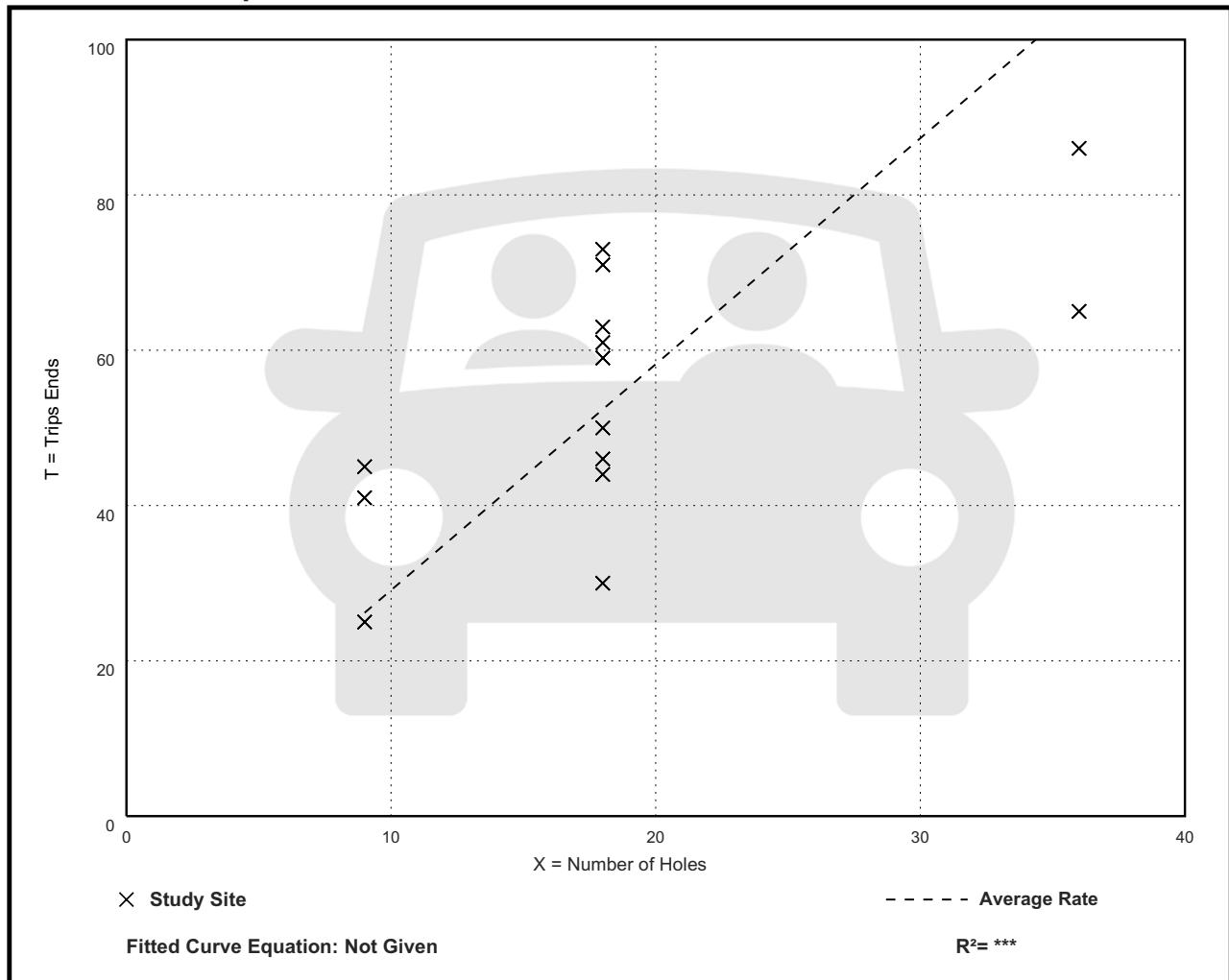
Avg. Num. of Holes: 19

Directional Distribution: 53% entering, 47% exiting

Vehicle Trip Generation per Hole

Average Rate	Range of Rates	Standard Deviation
2.91	1.67 - 5.00	0.93

Data Plot and Equation



Land Use: 492

Health/Fitness Club

Description

A health/fitness club is a privately-owned facility that primarily focuses on individual fitness or training. It typically provides exercise classes, fitness equipment, a weight room, spa, lockers rooms, and a small restaurant or snack bar. This land use may also include ancillary facilities, such as a swimming pool, whirlpool, sauna, limited retail, and tennis, pickle ball, racquetball, or handball courts. These facilities are membership clubs that may allow access to the general public for a fee. Racquet/tennis club (Land Use 491), athletic club (Land Use 493), and recreational community center (Land Use 495) are related uses.

Additional Data

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), Connecticut, New Jersey, Pennsylvania, Vermont, and Wisconsin.

Source Numbers

253, 571, 588, 598, 728, 926, 959, 971

Health/Fitness Club (492)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 6

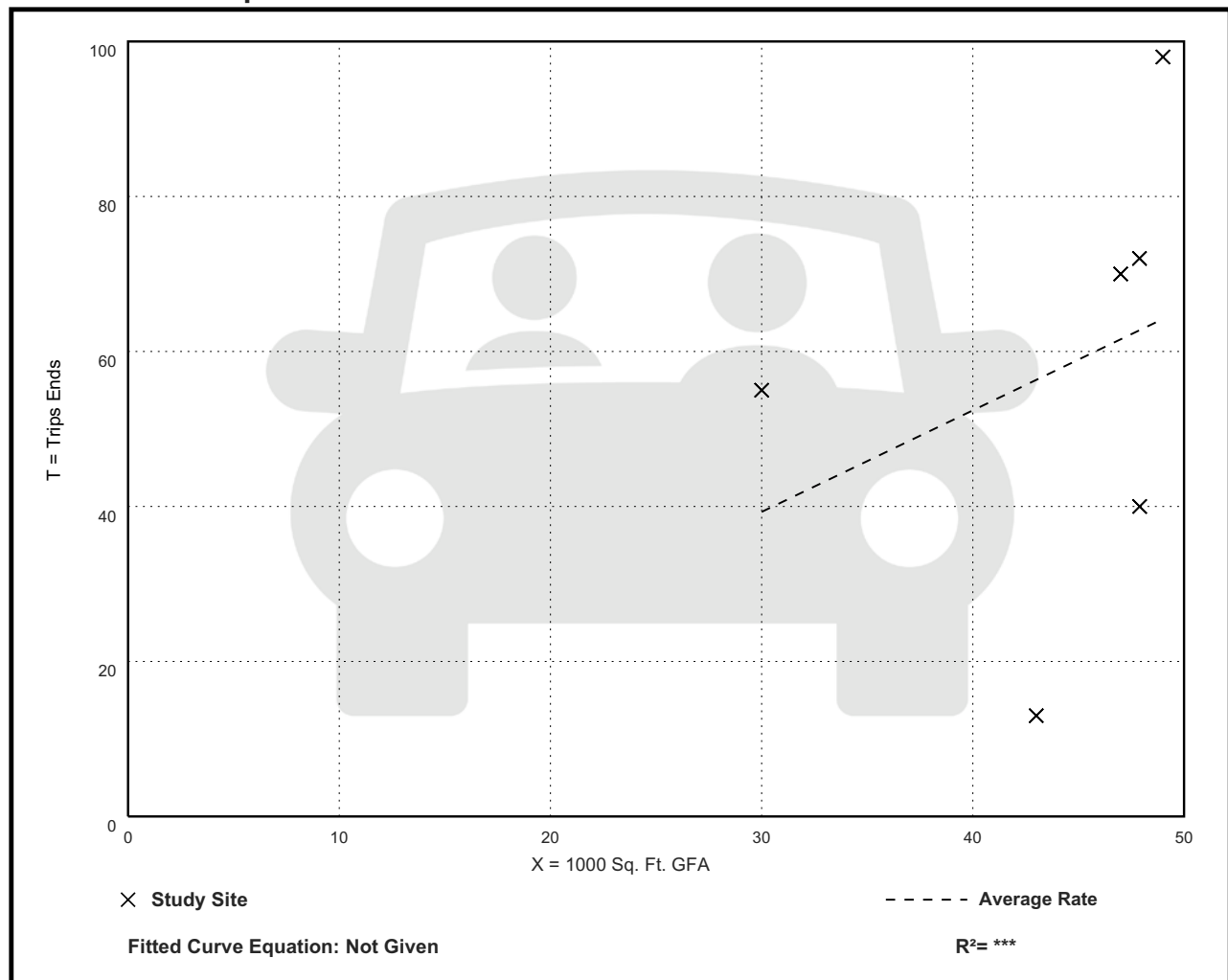
Avg. 1000 Sq. Ft. GFA: 44

Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.31	0.30 - 2.00	0.64

Data Plot and Equation



Health/Fitness Club (492)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 8

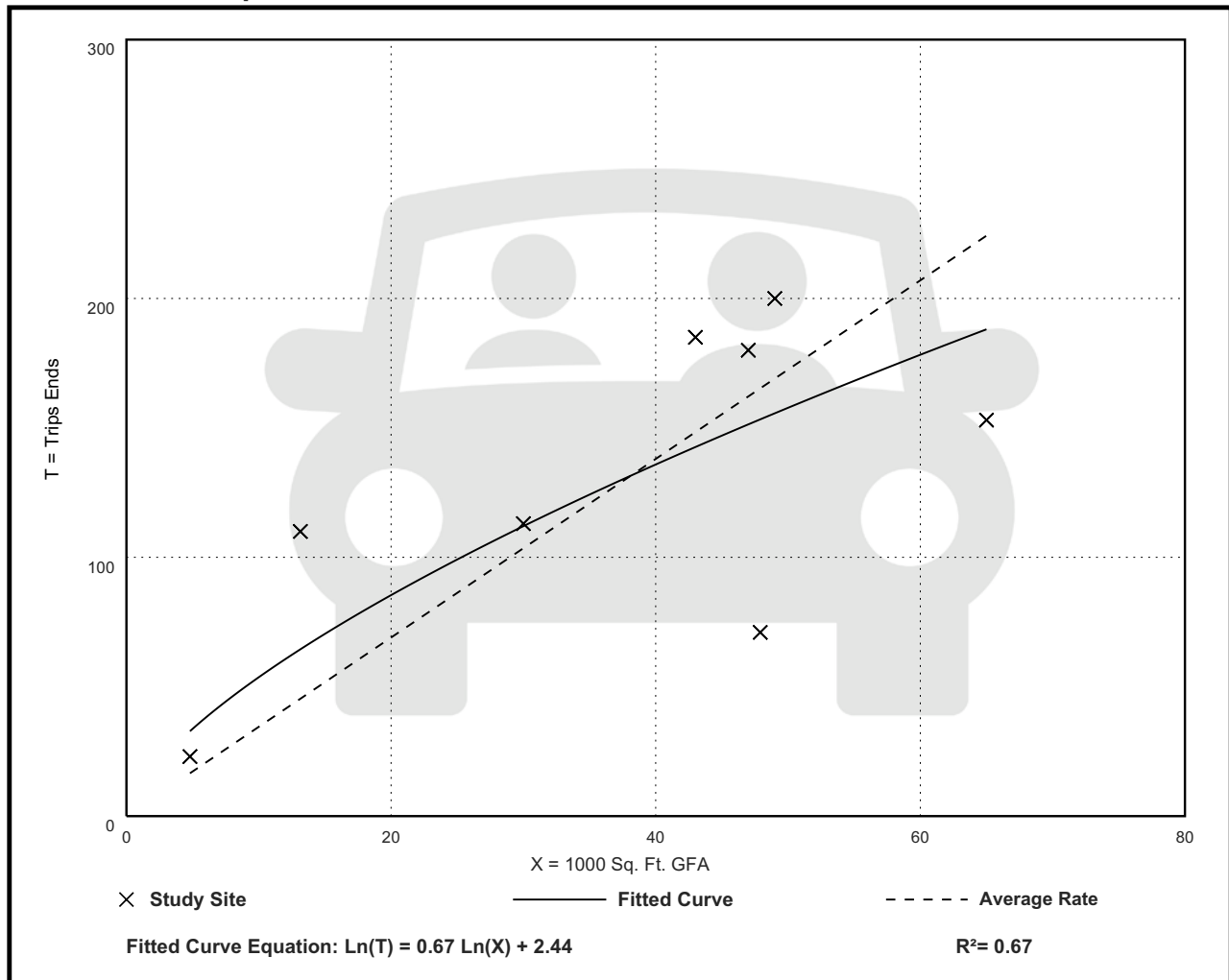
Avg. 1000 Sq. Ft. GFA: 37

Directional Distribution: 57% entering, 43% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.45	1.48 - 8.37	1.57

Data Plot and Equation



Land Use: 710

General Office Building

Description

A general office building is a location where affairs of businesses, commercial or industrial organizations, or professional persons or firms are conducted. An office building houses multiple tenants that can include, as examples, professional services, insurance companies, investment brokers, a banking institution, a restaurant, or other service retailers. A general office building with a gross floor area of 10,000 square feet or less is classified as a small office building (Land Use 712). Corporate headquarters building (Land Use 714), single tenant office building (Land Use 715), medical-dental office building (Land Use 720), office park (Land Use 750), research and development center (Land Use 760), and business park (Land Use 770) are additional related uses.

Additional Data

If two or more general office buildings are in close physical proximity (within a close walk) and function as a unit (perhaps with a shared parking facility and common or complementary tenants), the total gross floor area or employment of the paired office buildings can be used for calculating the site trip generation. If the individual buildings are isolated or not functionally related to one another, trip generation should be calculated for each building separately.

For study sites with reported gross floor area and employees, an average employee density of 3.3 employees per 1,000 square feet GFA (or roughly 300 square feet per employee) has been consistent through the 1980s, 1990s, and 2000s. No sites counted in the 2010s reported both GFA and employees.

The average building occupancy varies considerably within the studies for which occupancy data were provided. The reported occupied gross floor area was 88 percent for general urban/suburban sites and 96 percent for the center city core and dense multi-use urban sites.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

The average numbers of person trips per vehicle trip at the eight center city core sites at which both person trip and vehicle trip data were collected are as follows:

- 2.8 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 2.9 during Weekday, AM Peak Hour of Generator
- 2.9 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 3.0 during Weekday, PM Peak Hour of Generator

The average numbers of person trips per vehicle trip at the 18 dense multi-use urban sites at which both person trip and vehicle trip data were collected are as follows:

- 1.5 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 1.5 during Weekday, AM Peak Hour of Generator
- 1.5 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 1.5 during Weekday, PM Peak Hour of Generator

The average numbers of person trips per vehicle trip at the 23 general urban/suburban sites at which both person trip and vehicle trip data were collected are as follows:

- 1.3 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 1.3 during Weekday, AM Peak Hour of Generator
- 1.3 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 1.4 during Weekday, PM Peak Hour of Generator

The sites were surveyed in the 1980s, the 1990s, the 2000s, the 2010s, and the 2020s in Alberta (CAN), California, Colorado, Connecticut, Georgia, Illinois, Indiana, Kansas, Kentucky, Maine, Maryland, Michigan, Minnesota, Missouri, Montana, New Hampshire, New Jersey, New York, Ontario (CAN) Pennsylvania, Texas, Utah, Virginia, and Washington.

Source Numbers

161, 175, 183, 184, 185, 207, 212, 217, 247, 253, 257, 260, 262, 273, 279, 297, 298, 300, 301, 302, 303, 304, 321, 322, 323, 324, 327, 404, 407, 408, 419, 423, 562, 734, 850, 859, 862, 867, 869, 883, 884, 890, 891, 904, 940, 944, 946, 964, 965, 972, 1009, 1030, 1058, 1061

General Office Building (710)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 59

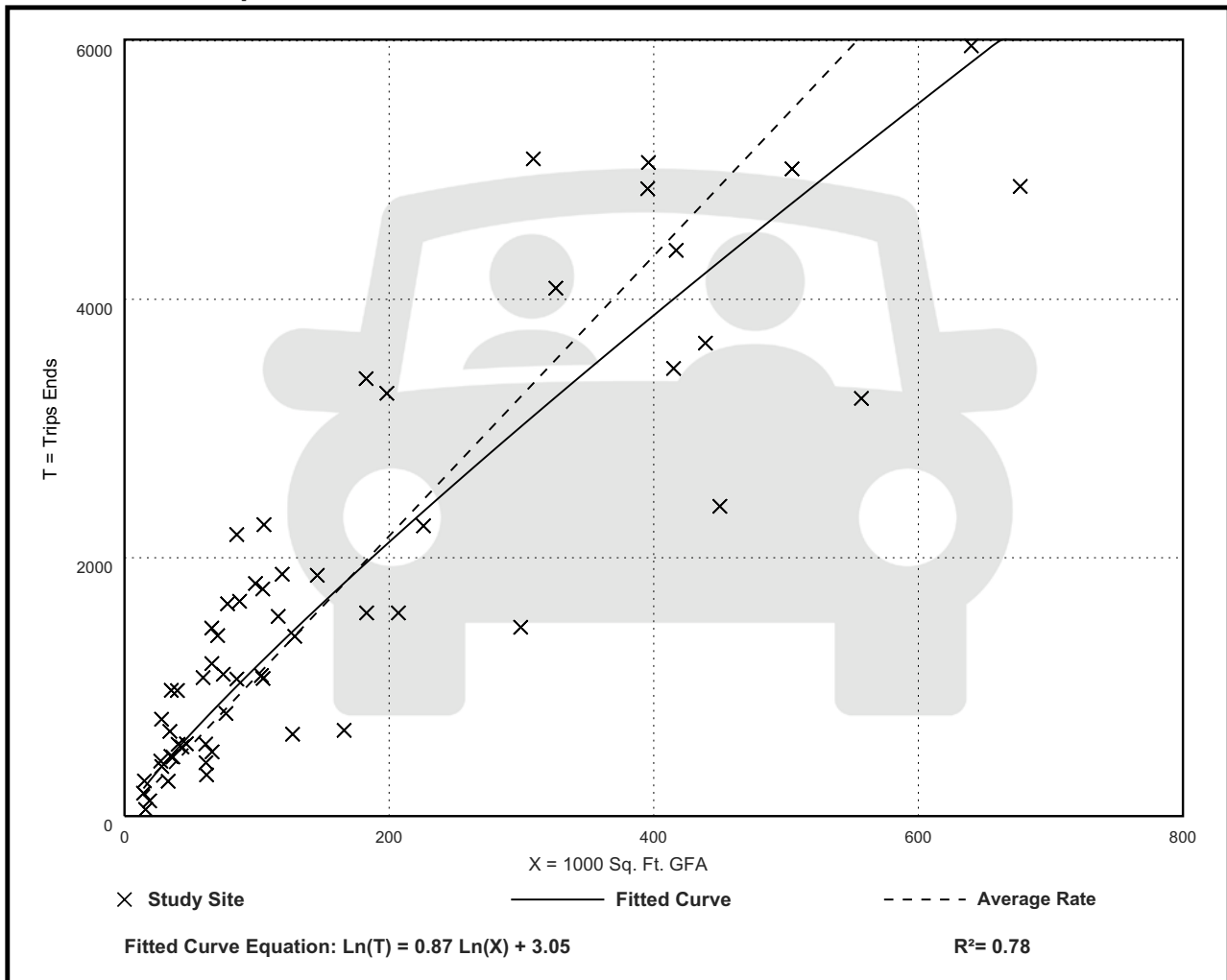
Avg. 1000 Sq. Ft. GFA: 163

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
10.84	3.27 - 27.56	4.76

Data Plot and Equation



General Office Building (710)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 221

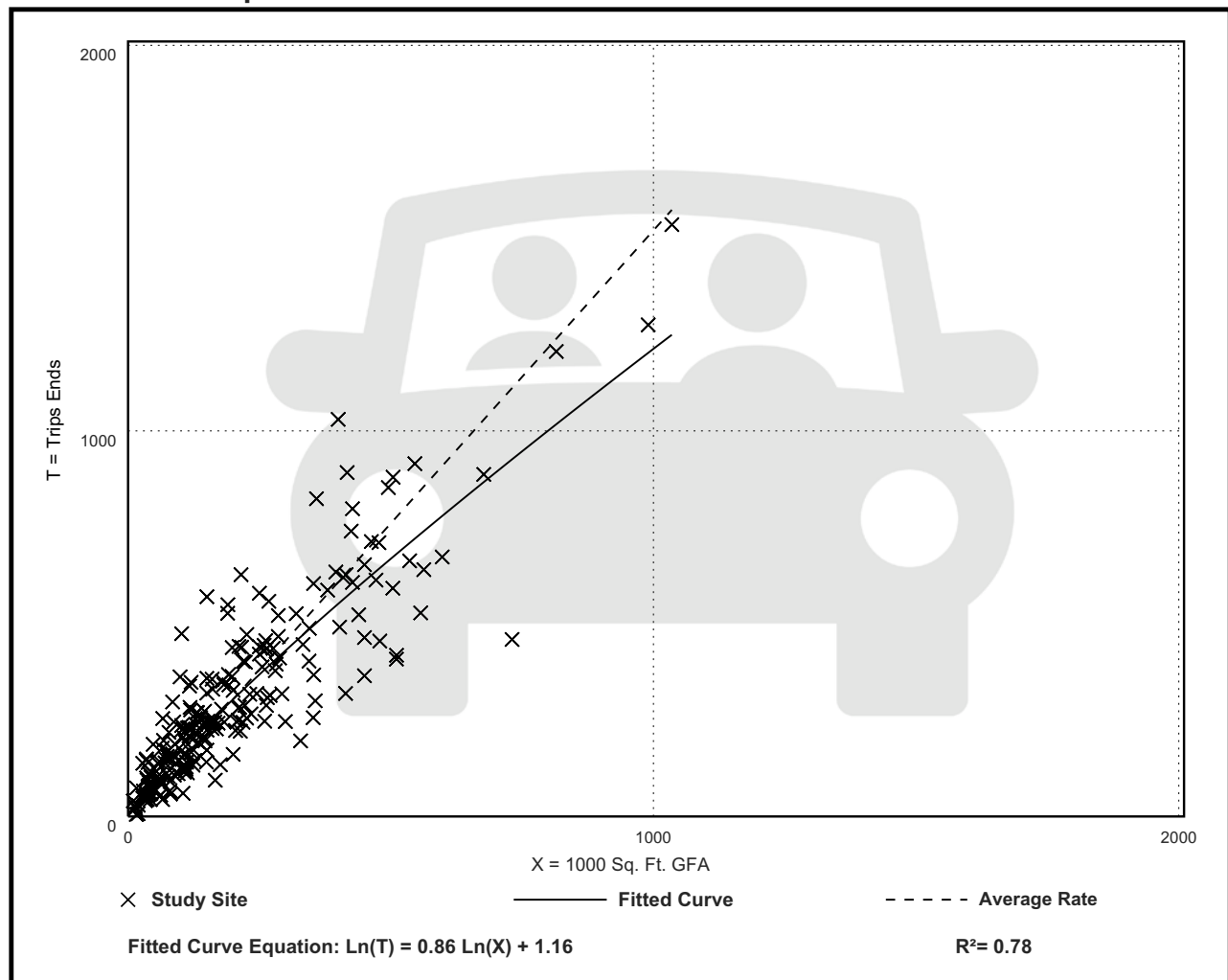
Avg. 1000 Sq. Ft. GFA: 201

Directional Distribution: 88% entering, 12% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.52	0.32 - 4.93	0.58

Data Plot and Equation



General Office Building (710)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 232

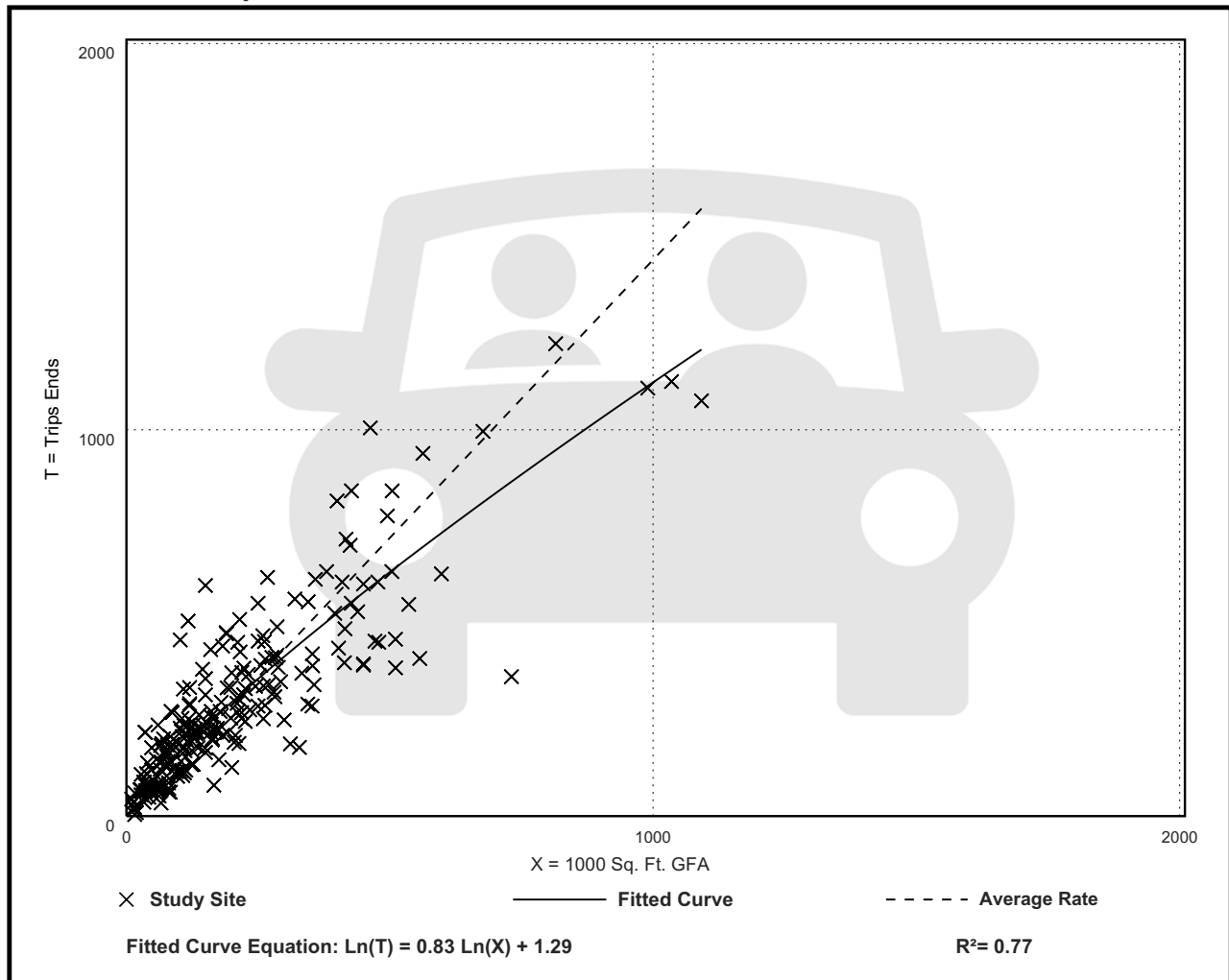
Avg. 1000 Sq. Ft. GFA: 199

Directional Distribution: 17% entering, 83% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.44	0.26 - 6.20	0.60

Data Plot and Equation



Land Use: 822

Strip Retail Plaza (<40k)

Description

A strip retail plaza is an integrated group of commercial establishments that is planned, developed, owned, and managed as a unit. Each study site in this land use has less than 40,000 square feet of gross leasable area (GLA). Because a strip retail plaza is open-air, the GLA is the same as the gross floor area of the building.

The 40,000 square feet GFA threshold between strip retail plaza and shopping plaza (Land Use 821) was selected based on an examination of the overall shopping center/plaza database. No shopping plaza with a supermarket as its anchor is smaller than 40,000 square feet GLA.

Shopping center (>150k) (Land use 820), shopping plaza (40-150k) (Land Use 821), and factory outlet center (Land Use 823) are related uses.

Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), California, Delaware, Florida, New Jersey, Ontario (CAN), South Dakota, Vermont, Washington, and Wisconsin.

Source Numbers

304, 358, 423, 428, 437, 507, 715, 728, 936, 960, 961, 974, 1009

Strip Retail Plaza (<40k) (822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA

On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 4

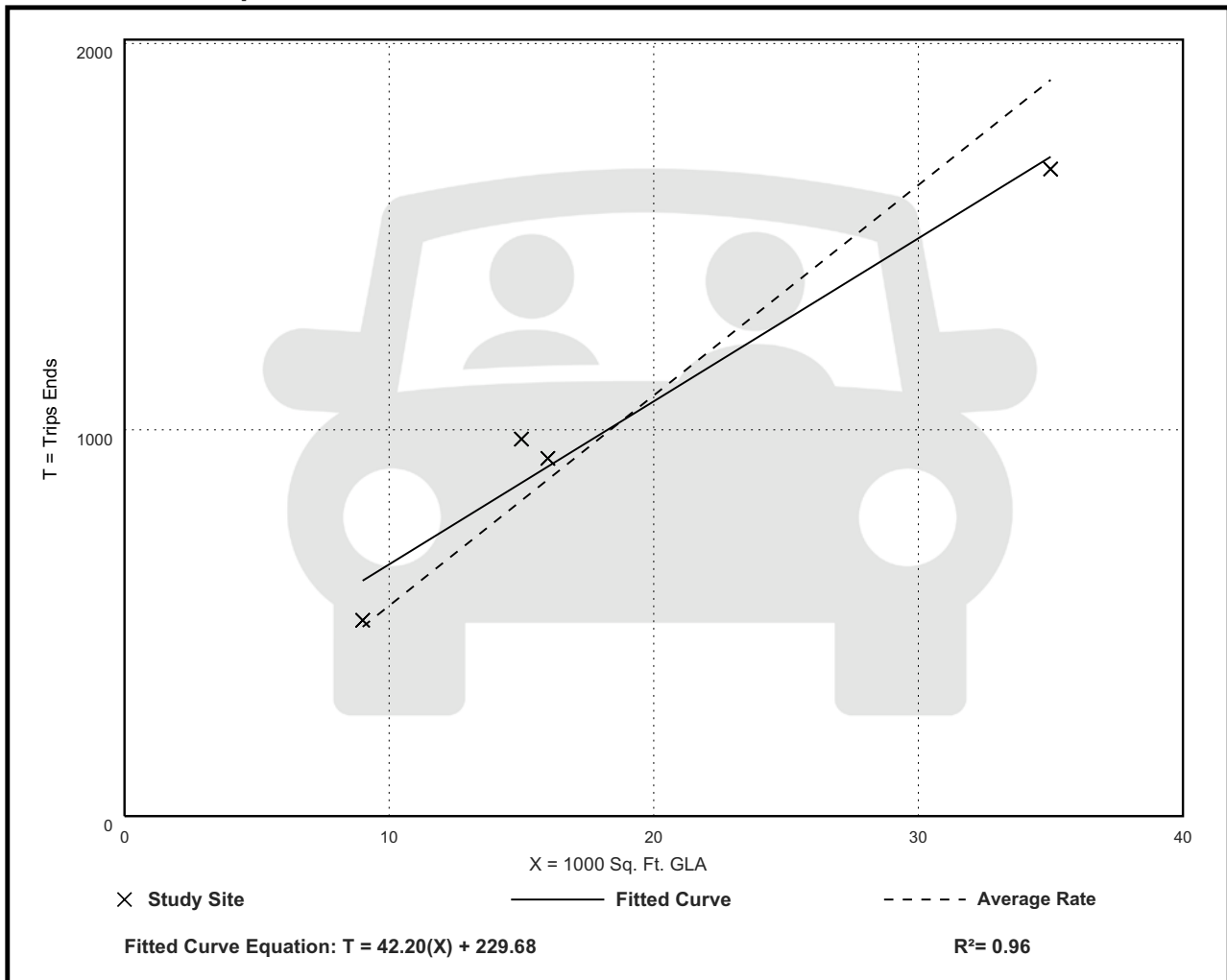
Avg. 1000 Sq. Ft. GLA: 19

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
54.45	47.86 - 65.07	7.81

Data Plot and Equation



Strip Retail Plaza (<40k) (822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 5

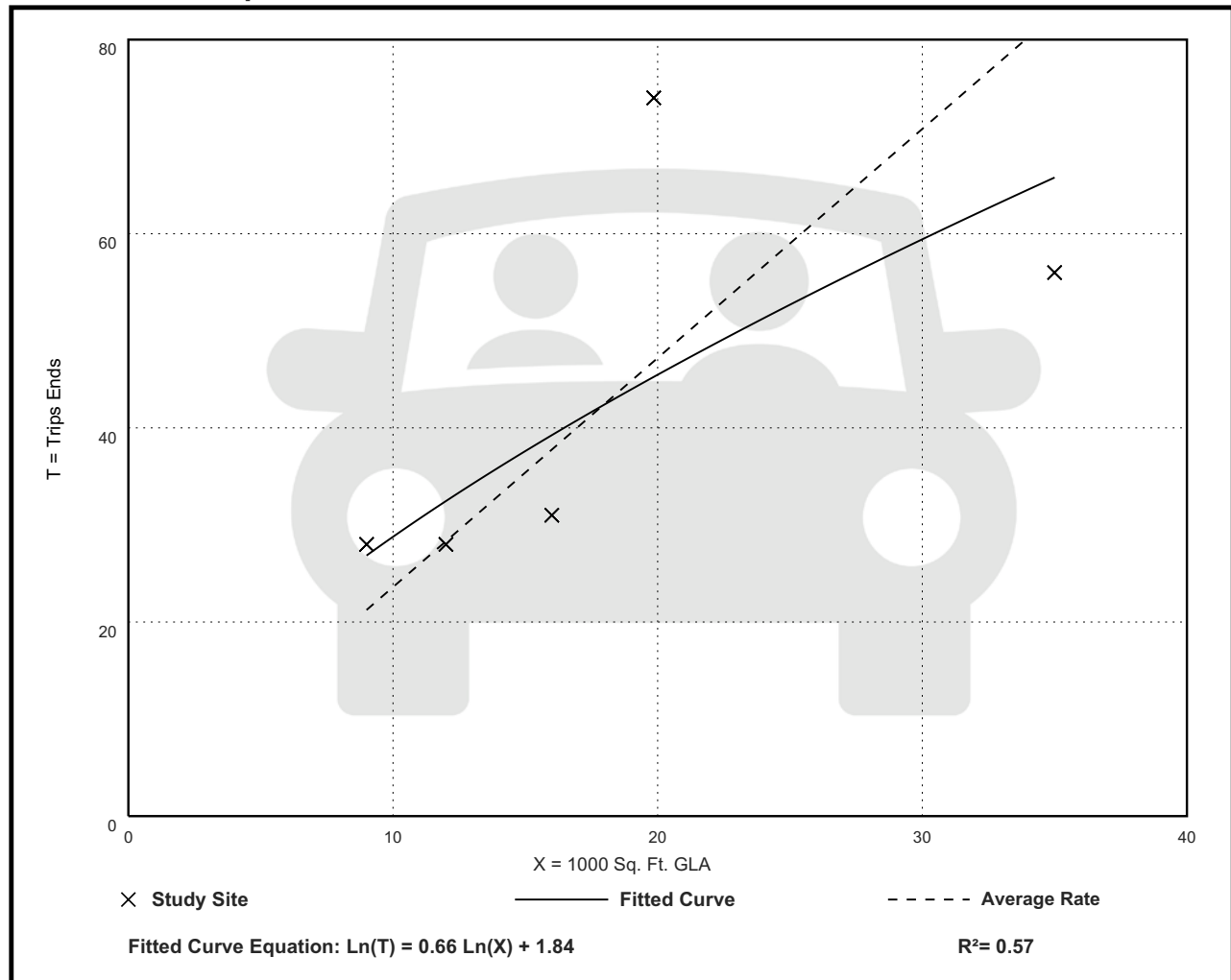
Avg. 1000 Sq. Ft. GLA: 18

Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
2.36	1.60 - 3.73	0.94

Data Plot and Equation



Strip Retail Plaza (<40k) (822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 25

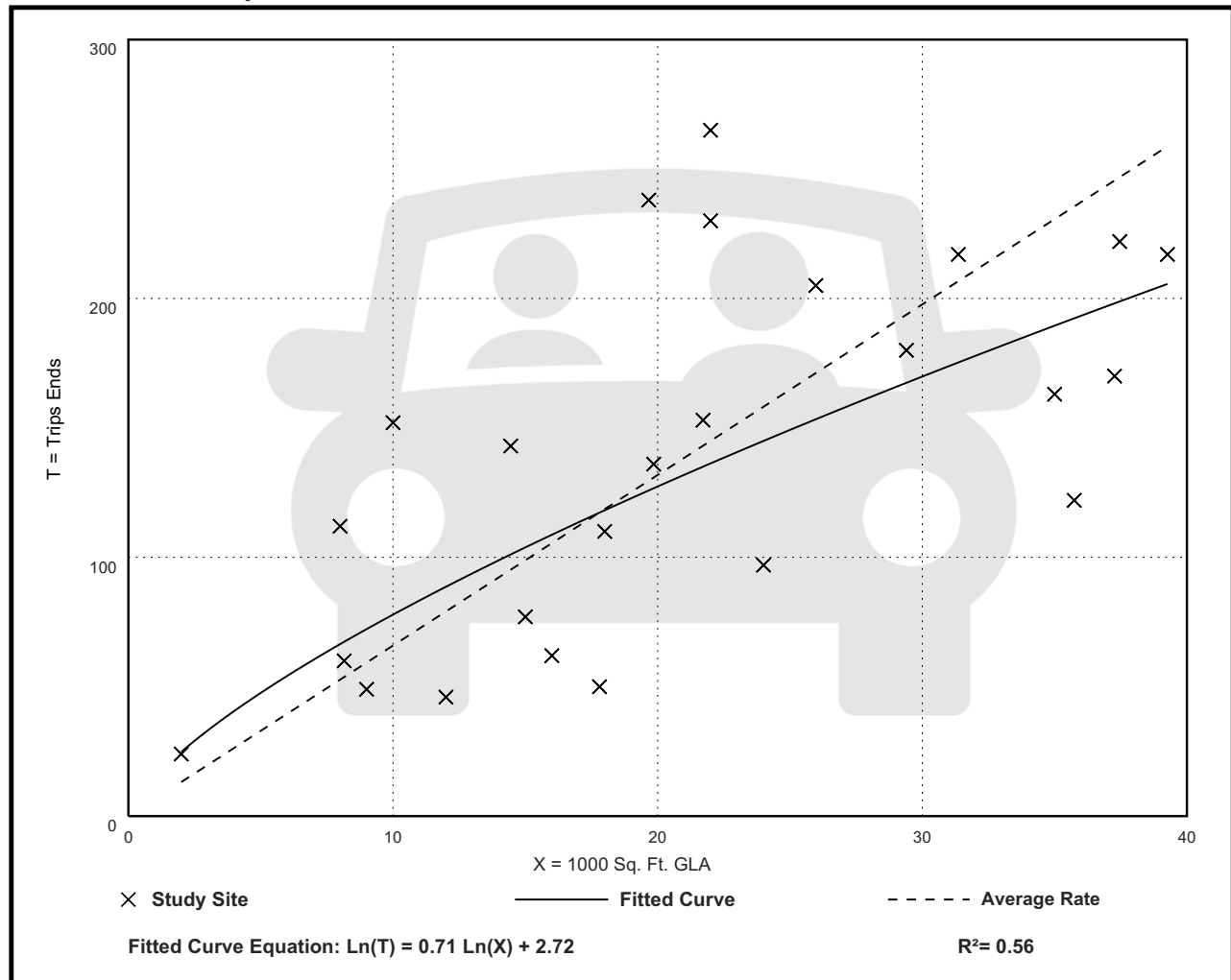
Avg. 1000 Sq. Ft. GLA: 21

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
6.59	2.81 - 15.20	2.94

Data Plot and Equation



**Table 6.1 Unconstrained Internal Person Trip Capture Rates
for Trip Origins within a Mixed-Use Development**

		WEEKDAY	
		AM Peak Hour	PM Peak Hour
From OFFICE	To Retail	28%	20%
	To Restaurant	63%	4%
	To Cinema/Entertainment	0%	0%
	To Residential	1%	2%
	To Hotel	0%	0%
From RETAIL	To Office	29%	2%
	To Restaurant	13%	29%
	To Cinema/Entertainment	0%	4%
	To Residential	14%	26%
	To Hotel	0%	5%
From RESTAURANT	To Office	31%	3%
	To Retail	14%	41%
	To Cinema/Entertainment	0%	8%
	To Residential	4%	18%
	To Hotel	3%	7%
From CINEMA/ENTERTAINMENT	To Office	0%	2%
	To Retail	0%	21%
	To Restaurant	0%	31%
	To Residential	0%	8%
	To Hotel	0%	2%
From RESIDENTIAL	To Office	2%	4%
	To Retail	1%	42%
	To Restaurant	20%	21%
	To Cinema/Entertainment	0%	0%
	To Hotel	0%	3%
From HOTEL	To Office	75%	0%
	To Retail	14%	16%
	To Restaurant	9%	68%
	To Cinema/Entertainment	0%	0%
	To Residential	0%	2%

Source: Bochner, B., K. Hooper, B. Sperry, and R. Dunphy. NCHRP Report 684: *Enhancing Internal Trip Capture Estimation for Mixed-Use Developments*. Washington, DC: Transportation Research Board, Tables 99 and 100, 2011.

**Table 6.2 Unconstrained Internal Person Trip Capture Rates
for Trip Destinations within a Mixed-Use Development**

		Weekday	
		AM Peak Hour	PM Peak Hour
To OFFICE	From Retail	4%	31%
	From Restaurant	14%	30%
	From Cinema/Entertainment	0%	6%
	From Residential	3%	57%
	From Hotel	3%	0%
To RETAIL	From Office	32%	8%
	From Restaurant	8%	50%
	From Cinema/Entertainment	0%	4%
	From Residential	17%	10%
	From Hotel	4%	2%
To RESTAURANT	From Office	23%	2%
	From Retail	50%	29%
	From Cinema/Entertainment	0%	3%
	From Residential	20%	14%
	From Hotel	6%	5%
To CINEMA/ENTERTAINMENT	From Office	0%	1%
	From Retail	0%	26%
	From Restaurant	0%	32%
	From Residential	0%	0%
	From Hotel	0%	0%
To RESIDENTIAL	From Office	0%	4%
	From Retail	2%	46%
	From Restaurant	5%	16%
	From Cinema/Entertainment	0%	4%
	From Hotel	0%	0%
To HOTEL	From Office	0%	0%
	From Retail	0%	17%
	From Restaurant	4%	71%
	From Cinema/Entertainment	0%	1%
	From Residential	0%	12%

Source: Bochner, B., K. Hooper, B. Sperry, and R. Dunphy. NCHRP Report 684: *Enhancing Internal Trip Capture Estimation for Mixed-Use Developments*. Washington, DC: Transportation Research Board, Tables 101 and 102, 2011.

**Table E.9 (Cont'd) Pass-By and Non-Pass-By Trips Weekday, PM
Peak Period Land Use Code 820—Shopping Center**

SIZE (1,000 SQ. FT. GLA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIP (%)			ADJ. STREET PEAK HOUR VOLUME	AVERAGE 24-HOUR TRAFFIC	SOURCE
						PRIMARY	DIVERTED	TOTAL			
921	Albany, NY	July & Aug. 1985	198	4:00–6:00 p.m.	23	42	35	77	—	80,950	Raymond Keyes Assoc.
108	Overland Park, KS	July 1988	111	4:30–5:30 p.m.	26	81	13	74	—	34,000	—
118	Overland Park, KS	Aug. 1988	123	4:30–5:30 p.m.	25	55	20	75	—	—	—
256	Greece, NY	June 1988	120	4:00–6:00 p.m.	38	62	—	62	—	23,410	Sear Brown
180	Greece, NY	June 1988	78	4:00–6:00 p.m.	29	71	—	71	—	57,308	Sear Brown
550	Greece, NY	June 1988	117	4:00–6:00 p.m.	48	52	—	52	—	40,763	Sear Brown
51	Boca Raton, FL	Dec. 1987	110	4:00–6:00 p.m.	33	34	33	67	—	42,225	Kintley-Horn and Assoc. Inc.
1,090	Ross Twp, PA	July 1988	411	2:00–8:00 p.m.	34	56	10	86	—	51,500	Wilbur Smith and Assoc.
97	Upper Dublin Twp, PA	Winter 1988/89	—	4:00–6:00 p.m.	41	—	—	59	—	34,000	McMahon Associates
118	Tredyffrin Twp, PA	Winter 1988/89	—	4:00–6:00 p.m.	24	—	—	76	—	10,000	Booz Allen & Hamilton
122	Lawnside, NJ	Winter 1988/89	—	4:00–6:00 p.m.	37	—	—	63	—	20,000	Pennoni Associates
126	Boca Raton, FL	Winter 1988/89	—	4:00–6:00 p.m.	43	—	—	57	—	40,000	McMahon Associates
150	Willow Grove, PA	Winter 1988/89	—	4:00–6:00 p.m.	39	—	—	61	—	26,000	Booz Allen & Hamilton
153	Broward Cnty., FL	Winter 1988/89	—	4:00–6:00 p.m.	50	—	—	50	—	85,000	McMahon Associates
153	Arden, DE	Winter 1988/89	—	4:00–6:00 p.m.	30	—	—	70	—	26,000	Orth-Rodgers & Assoc. Inc.
154	Doylestown, PA	Winter 1988/89	—	4:00–6:00 p.m.	32	—	—	68	—	29,000	Orth-Rodgers & Assoc. Inc.
164	Middletown Twp, PA	Winter 1988/89	—	4:00–6:00 p.m.	33	—	—	67	—	25,000	Booz Allen & Hamilton
166	Haddon Twp, NJ	Winter 1988/89	—	4:00–6:00 p.m.	20	—	—	80	—	6,000	Pennoni Associates
205	Broward Cnty., FL	Winter 1988/89	—	4:00–6:00 p.m.	55	—	—	45	—	62,000	McMahon Associates

**Table E.9 (Cont'd) Pass-By and Non-Pass-By Trips Weekday, PM Peak Period
Land Use Code 820—Shopping Center**

SIZE (1,000 SQ. FT. GLA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIP (%)			ADJ. STREET PEAK HOUR VOLUME	AVERAGE 24-HOUR TRAFFIC	SOURCE
						PRIMARY	DIVERTED	TOTAL			
237	VV Windsor Twp, NJ	Winter 1988/89	—	4:00–6:00 p.m.	48	—	—	52	—	46,000	Booz Allen & Hamilton
242	Willow Grove, PA	Winter 1988/89	—	4:00–6:00 p.m.	37	—	—	63	—	26,000	McMahon Associates
297	Whitehall, PA	Winter 1988/89	—	4:00–6:00 p.m.	33	—	—	67	—	26,000	Orth-Rodgers & Assoc. Inc.
380	Broward Cnty., FL	Winter 1988/89	—	4:00–6:00 p.m.	44	—	—	56	—	73,000	McMahon Associates
370	Pittsburgh, PA	Winter 1988/89	—	4:00–6:00 p.m.	19	—	—	81	—	33,000	Wilbur Smith
150	Portland, OR	—	519	4:00–6:00 p.m.	68	6	26	32	—	25,000	Kittelson and Associates
150	Portland, OR	—	655	4:00–6:00 p.m.	65	7	28	35	—	30,000	Kittelson and Associates
760	Calgary, Alberta	Oct.-Dec. 1987	15,436	4:00–6:00 p.m.	20	39	41	80	—	—	City of Calgary DOT
178	Bordentown, NJ	Apr. 1989	154	2:00–6:00 p.m.	35	—	—	65	—	37,980	Raymond Keyes Assoc.
144	Manalapan, NJ	July 1990	176	3:30–6:15 p.m.	32	44	24	68	—	69,347	Raymond Keyes Assoc.
549	Natick, MA	Feb. 1989	—	4:45–6:45 p.m.	33	26	41	67	—	48,782	Raymond Keyes Assoc.

Average Pass-By Trip Percentage: 34
“—” means no data were provided

APPENDIX G

FUTURE INTERSECTION VOLUME PROJECTIONS

	SR 80/River Hall Parkway																			
AM Peak Hour	EBU	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	EB A.	EB D.	WB A.	WB D.	NB A.	NB D.	SB A.	SB D.
2021 (Raw Count)	2	649	222	57	1241		191		19				873	668	1298	1432	210	2	0	279
2021 (Peak Season Adjusted)	2	753	258	66	1440		222		22				1013	775	1506	1662	244	2	0	324
Inbound Distribution (Existing River Hall PD)			79.6%	20.4%									79.6%	0.0%	20.4%	0.0%	0.0%	0.0%	0.0%	100.0%
Outbound Distribution (Existing River Hall PD)							91.0%		9.0%				0.0%	9.0%	0.0%	91.0%	100.0%	0.0%	0.0%	0.0%
Existing River Hall PD	0	0	130	33	0	0	186	0	18	0	0	0	130	18	33	186	204	0	0	163
Existing (Without River Hall)	2	753	128	33	1440	0	36	0	4	0	0	0	883	757	1473	1476	40	2	0	161
Future BG (Without River Hall)	2	832	141	36	1591	0	40	0	4	0	0	0	975	836	1627	1631	44	2	0	177
Inbound Distribution (Current Zoning)			83.2%	15.4%									83.2%	0.0%	15.4%	0.0%	0.0%	0.0%	0.0%	98.6%
Outbound Distribution (Current Zoning)							83.2%		15.4%				0.0%	15.4%	0.0%	83.2%	98.6%	0.0%	0.0%	0.0%
Net New River Hall CPD/RPD Assignment (Current Zoning)	0	0	344	64	0	0	888	0	165	0	0	0	344	165	64	888	1053	0	0	408
Pass-by Assignment (Current Zoning)		-10	10						10				0	0	0	0	10	0	0	10
River Hall Parkway Pass-Through			6	1			5		1				6	1	1	5	6	0	0	7
Total Future Traffic (Current Zoning)	2	822	501	101	1591	0	933	0	180	0	0	0	1325	1002	1692	2524	1113	2	0	602
Inbound Distribution (Proposed Zoning)			83.3%	15.1%									83.3%	0.0%	15.1%	0.0%	0.0%	0.0%	0.0%	98.4%
Outbound Distribution (Proposed Zoning)							83.3%		15.1%				0.0%	15.1%	0.0%	83.3%	98.4%	0.0%	0.0%	0.0%
Net New River Hall CPD/RPD Assignment (Proposed Zoning)	0	0	373	67	0	0	1055	0	191	0	0	0	373	191	67	1055	1246	0	0	440
Pass-by Assignment (Proposed Zoning)		-5	5						5				0	0	0	0	5	0	0	5
River Hall Parkway Pass-Through			6	1			5		1				6	1	1	5	6	0	0	7
Total Future Traffic (Proposed Zoning)	2	827	525	104	1591	0	1100	0	201	0	0	0	1354	1028	1695	2691	1301	2	0	629
PM Peak Hour	EBU	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	EB A.	EB D.	WB A.	WB D.	NB A.	NB D.	SB A.	SB D.
2021 (Raw Count)	3	1357	211	21	793		169		38				1571	1395	814	962	207	3	0	232
2021 (Peak Season Adjusted)	3	1574	245	24	920		196		44				1822	1618	944	1116	240	3	0	269
Inbound Distribution (Existing River Hall PD)			91.1%	8.9%									91.1%	0.0%	8.9%	0.0%	0.0%	0.0%	0.0%	100.0%
Outbound Distribution (Existing River Hall PD)							81.7%		18.3%				0.0%	18.3%	0.0%	81.7%	100.0%	0.0%	0.0%	0.0%
Existing River Hall PD	0	0	199	20	0	0	142	0	32	0	0	0	199	32	20	142	174	0	0	219
Existing (Without River Hall)	3	1574	46	4	920	0	54	0	12	0	0	0	1623	1586	924	974	66	3	0	50
Future BG (Without River Hall)	3	1739	51	4	1017	0	60	0	13	0	0	0	1793	1752	1021	1077	73	3	0	55
Inbound Distribution (Current Zoning)			83.2%	15.4%									83.2%	0.0%	15.4%	0.0%	0.0%	0.0%	0.0%	98.6%
Outbound Distribution (Current Zoning)							83.2%		15.4%				0.0%	15.4%	0.0%	83.2%	98.6%	0.0%	0.0%	0.0%
Net New River Hall CPD/RPD Assignment (Current Zoning)	0	0	1,139	211	0	0	668	0	124	0	0	0	1139	124	211	668	792	0	0	1350
Pass-by Assignment (Current Zoning)		-22	22						22				0	0	0	0	22	0	0	22
River Hall Parkway Pass-Through			5	1			6		1				5	1	1	6	7	0	0	6
Total Future Traffic (Current Zoning)	3	1717	1217	216	1017	0	734	0	160	0	0	0	2937	1877	1233	1751	894	3	0	1433
Inbound Distribution (Proposed Zoning)			83.3%	15.1%									83.3%	0.0%	15.1%	0.0%	0.0%	0.0%	0.0%	98.4%
Outbound Distribution (Proposed Zoning)							83.3%		15.1%				0.0%	15.1%	0.0%	83.3%	98.4%	0.0%	0.0%	0.0%
Net New River Hall CPD/RPD Assignment (Proposed Zoning)	0	0	1,354	245	0	0	774	0	140	0	0	0	1354	140	245	774	914	0	0	1599
Pass-by Assignment (Proposed Zoning)		-14	14						14				0	0	0	0	14	0	0	14
River Hall Parkway Pass-Through			5	1			6		1				5	1	1	6	7	0	0	6
Total Future Traffic (Proposed Zoning)	3	1,725	1424	250	1017	0	840	0	168	0	0	0	3152	1893	1267	1857	1008	3	0	1674

	SR 80/Buckingham Road																			
AM Peak Hour	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	EB A.	EB D.	WB A.	WB D.	NB A.	NB D.	SB A.	SB D.
Past 2018 Count (Peak Season Adjusted)	31	674	195	174	994	14	248	39	194	64	38	73	900	932	1182	1315	481	84	175	407
Estimated Existing 2021 (Peak Season Adjusted)	33	716	207	185	1057	15	264	41	206	68	40	78	956	990	1257	1399	511	89	186	432
Inbound Distribution (Existing River Hall PD)		54.9%							23.0%	2.6%			54.9%	80.6%	0.0%	0.0%	23.0%	0.0%	2.6%	0.0%
Outbound Distribution (Existing River Hall PD)				23.0%	54.9%	2.6%							0.0%	0.0%	80.6%	54.9%	0.0%	2.6%	0.0%	23.0%
Existing River Hall PD	0	90	0	47	112	5	0	0	38	4	0	0	90	132	164	112	38	5	4	47
Existing (Without River Hall)	33	626	207	138	945	10	264	41	168	64	40	78	866	858	1093	1287	473	84	182	385
Future BG (Without River Hall)	36	692	229	152	1044	11	292	45	186	71	44	86	957	949	1207	1422	523	92	201	425
Inbound Distribution (Current Zoning)		54.9%							23.0%	2.6%			54.9%	80.6%	0.0%	0.0%	23.0%	0.0%	2.6%	0.0%
Outbound Distribution (Current Zoning)				23.0%	54.9%	2.6%							0.0%	0.0%	80.6%	54.9%	0.0%	2.6%	0.0%	23.0%
Net New River Hall CPD/RPD Assignment (Current Zoning)	0	227	0	246	587	28	0	0	95	11	0	0	227	333	861	587	95	28	11	246
Pass-by Assignment (Current Zoning)		5			5								0	0	0	0	0	0	0	0
River Hall Parkway Pass-Through													5	5	5	5	0	0	0	0
Total Future Traffic (Current Zoning)	36	924	229	398	1636	39	292	45	281	82	44	86	1189	1287	2073	2014	618	120	212	671
Inbound Distribution (Proposed Zoning)		55.7%							22.4%	2.6%			55.7%	80.7%	0.0%	0.0%	22.4%	0.0%	2.6%	0.0%
Outbound Distribution (Proposed Zoning)				22.4%	55.7%	2.6%							0.0%	0.0%	80.7%	55.7%	0.0%	2.6%	0.0%	22.4%
Net New River Hall CPD/RPD Assignment (Proposed Zoning)	0	249	0	284	706	32	0	0	100	11	0	0	249	360	1022	706	100	32	11	284
Pass-by Assignment (Proposed Zoning)		5			5								0	0	0	0	0	0	0	0
River Hall Parkway Pass-Through													5	5	5	5	0	0	0	0
Total Future Traffic (Proposed Zoning)	36	946	229	436	1755	43	292	45	286	82	44	86	1211	1314	2234	2133	623	124	212	709
	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE								
PM Peak Hour	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	EB A.	EB D.	WB A.	WB D.	NB A.	NB D.	SB A.	SB D.
Past 2019 Count (Peak Season Adjusted)	69	1418	299	165	716	13	291	85	178	96	102	64	1786	1692	894	1071	554	167	262	566
Estimated Existing 2021 (Peak Season Adjusted)	72	1478	312	172	746	14	303	89	185	100	106	67	1862	1763	932	1116	577	175	273	590
Inbound Distribution (Existing River Hall PD)		54.9%							23.0%	2.6%			54.9%	80.6%	0.0%	0.0%	23.0%	0.0%	2.6%	0.0%
Outbound Distribution (Existing River Hall PD)				23.0%	54.9%	2.6%							0.0%	0.0%	80.6%	54.9%	0.0%	2.6%	0.0%	23.0%
Existing River Hall PD	0	120	0	40	96	5	0	0	50	6	0	0	120	176	141	96	50	5	6	40
Existing (Without River Hall)	72	1358	312	132	650	9	303	89	135	94	106	67	1742	1587	791	1020	527	170	267	550
Future BG (Without River Hall)	80	1501	345	146	718	10	335	98	149	104	117	74	1926	1754	874	1127	582	188	295	608
Inbound Distribution (Current Zoning)		54.9%							23.0%	2.6%			54.9%	80.6%	0.0%	0.0%	23.0%	0.0%	2.6%	0.0%
Outbound Distribution (Current Zoning)				23.0%	54.9%	2.6%							0.0%	0.0%	80.6%	54.9%	0.0%	2.6%	0.0%	23.0%
Net New River Hall CPD/RPD Assignment (Current Zoning)	0	752	0	185	441	21	0	0	315	36	0	0	752	1103	647	441	315	21	36	185
Pass-by Assignment (Current Zoning)		5			5								0	0	0	0	0	0	0	0
River Hall Parkway Pass-Through													5	5	5	5	0	0	0	0
Total Future Traffic (Current Zoning)	80	2258	345	331	1164	31	335	98	464	140	117	74	2683	2862	1526	1573	897	209	331	793
Inbound Distribution (Proposed Zoning)		55.7%							22.4%	2.6%			55.7%	80.7%	0.0%	0.0%	22.4%	0.0%	2.6%	0.0%
Outbound Distribution (Proposed Zoning)				22.4%	55.7%	2.6%							0.0%	0.0%	80.7%	55.7%	0.0%	2.6%	0.0%	22.4%
Net New River Hall CPD/RPD Assignment (Proposed Zoning)	0	906	0	208	518	24	0	0	365	41	0	0	906	1312	750	518	365	24	41	208
Pass-by Assignment (Proposed Zoning)		5			5								0	0	0	0	0	0	0	0
River Hall Parkway Pass-Through													5	5	5	5	0	0	0	0
Total Future Traffic (Proposed Zoning)	80	2412	345	354	1241	34	335	98	514	145	117	74	2837	3071	1629	1650	947	212	336	816
	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE								

	SR 80/SR 31																			
AM Peak Hour	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	EB A.	EB D.	WB A.	WB D.	NB A.	NB D.	SB A.	SB D.
Past 2016 Count (Peak Season Adjusted)	123	504	32	110	1794	278	75	20	36	222	16	226	659	762	2182	2095	131	421	464	158
Estimated Existing 2021 (Peak Season Adjusted)	137	559	36	122	1991	309	83	22	40	246	18	251	732	845	2422	2325	145	468	515	176
Inbound Distribution (Existing River Hall PD)		31.6%							0.0%	19.1%			31.6%	50.7%	0.0%	0.0%	0.0%	0.0%	19.1%	0.0%
Outbound Distribution (Existing River Hall PD)				0.0%	31.6%	19.1%							0.0%	0.0%	50.7%	31.6%	0.0%	19.1%	0.0%	0.0%
Existing River Hall PD	0	52	0	0	65	39	0	0	0	31	0	0	52	83	104	65	0	39	31	0
Existing (Without River Hall)	137	507	36	122	1926	270	83	22	40	215	18	251	680	762	2318	2260	145	429	484	176
Future BG (Without River Hall)	152	563	40	135	2138	300	92	24	44	239	20	279	755	846	2573	2509	160	476	538	195
Inbound Distribution (Current Zoning)		31.6%							0.0%	19.1%			31.6%	50.7%	0.0%	0.0%	0.0%	0.0%	19.1%	0.0%
Outbound Distribution (Current Zoning)				0.0%	31.6%	19.1%							0.0%	0.0%	50.7%	31.6%	0.0%	19.1%	0.0%	0.0%
Net New River Hall CPD/RPD Assignment (Current Zoning)	0	131	0	0	338	204	0	0	0	79	0	0	131	210	542	338	0	204	79	0
Pass-by Assignment (Current Zoning)													0	0	0	0	0	0	0	0
River Hall Parkway Pass-Through		0			0								0	0	0	0	0	0	0	0
Total Future Traffic (Current Zoning)	152	694	40	135	2476	504	92	24	44	318	20	279	886	1056	3115	2847	160	680	617	195
Inbound Distribution (Proposed Zoning)		32.4%							0.0%	19.2%			32.4%	51.6%	0.0%	0.0%	0.0%	0.0%	19.2%	0.0%
Outbound Distribution (Proposed Zoning)				0.0%	32.4%	19.2%							0.0%	0.0%	51.6%	32.4%	0.0%	19.2%	0.0%	0.0%
Net New River Hall CPD/RPD Assignment (Proposed Zoning)	0	145	0	0	410	244	0	0	0	86	0	0	145	231	654	410	0	244	86	0
Pass-by Assignment (Proposed Zoning)													0	0	0	0	0	0	0	0
River Hall Parkway Pass-Through		0			0								0	0	0	0	0	0	0	0
Total Future Traffic (Proposed Zoning)	152	708	40	135	2548	544	92	24	44	325	20	279	900	1077	3227	2919	160	720	624	195
PM Peak Hour	<u>EBL</u>	<u>EBT</u>	<u>EBR</u>	<u>WBL</u>	<u>WBT</u>	<u>WBR</u>	<u>NBL</u>	<u>NBT</u>	<u>NBR</u>	<u>SBL</u>	<u>SBT</u>	<u>SBR</u>	<u>EB A.</u>	<u>EB D.</u>	<u>WB A.</u>	<u>WB D.</u>	<u>NB A.</u>	<u>NB D.</u>	<u>SB A.</u>	<u>SB D.</u>
Past 2019 Count (Peak Season Adjusted)	227	1788	76	106	830	273	109	89	258	350	66	205	2091	2396	1209	1144	456	589	621	248
Estimated Existing 2021 (Peak Season Adjusted)	237	1867	79	111	867	285	114	93	269	365	69	214	2183	2501	1263	1195	476	615	648	259
Inbound Distribution (Existing River Hall PD)		31.6%							0.0%	19.1%			31.6%	50.7%	0.0%	0.0%	0.0%	0.0%	19.1%	0.0%
Outbound Distribution (Existing River Hall PD)				0.0%	31.6%	19.1%							0.0%	0.0%	50.7%	31.6%	0.0%	19.1%	0.0%	0.0%
Existing River Hall PD	0	69	0	0	55	33	0	0	0	42	0	0	69	111	88	55	0	33	42	0
Existing (Without River Hall)	237	1798	79	111	812	252	114	93	269	323	69	214	2114	2390	1175	1140	476	582	606	259
Future BG (Without River Hall)	263	1996	88	123	901	280	127	103	299	359	77	238	2347	2654	1304	1266	529	646	674	288
Inbound Distribution (Current Zoning)		31.6%							0.0%	19.1%			31.6%	50.7%	0.0%	0.0%	0.0%	0.0%	19.1%	0.0%
Outbound Distribution (Current Zoning)				0.0%	31.6%	19.1%							0.0%	0.0%	50.7%	31.6%	0.0%	19.1%	0.0%	0.0%
Net New River Hall CPD/RPD Assignment (Current Zoning)	0	433	0	0	254	154	0	0	0	262	0	0	433	695	408	254	0	154	262	0
Pass-by Assignment (Current Zoning)													0	0	0	0	0	0	0	0
River Hall Parkway Pass-Through		0			0								0	0	0	0	0	0	0	0
Total Future Traffic (Current Zoning)	263	2429	88	123	1155	434	127	103	299	621	77	238	2780	3349	1712	1520	529	800	936	288
Inbound Distribution (Proposed Zoning)		32.4%							0.0%	19.2%			32.4%	51.6%	0.0%	0.0%	0.0%	0.0%	19.2%	0.0%
Outbound Distribution (Proposed Zoning)				0.0%	32.4%	19.2%							0.0%	0.0%	51.6%	32.4%	0.0%	19.2%	0.0%	0.0%
Net New River Hall CPD/RPD Assignment (Proposed Zoning)	0	526	0	0	301	179	0	0	0	313	0	0	526	839	480	301	0	179	313	0
Pass-by Assignment (Proposed Zoning)													0	0	0	0	0	0	0	0
River Hall Parkway Pass-Through		0			0								0	0	0	0	0	0	0	0
Total Future Traffic (Proposed Zoning)	263	2522	88	123	1202	459	127	103	299	672	77	238	2873	3493	1784	1567	529	825	987	288
	<u>TRUE</u>	<u>TRUE</u>	<u>TRUE</u>	<u>TRUE</u>	<u>TRUE</u>	<u>TRUE</u>	<u>TRUE</u>	<u>TRUE</u>	<u>TRUE</u>	<u>TRUE</u>	<u>TRUE</u>	<u>TRUE</u>								

APPENDIX H

SUFFICIENCY RESPONSE COMMENTS

**BOARD OF COUNTY COMMISSIONERS**

Kevin Ruane

District One

Cecil L. Pendergrass

District Two

Ray Sandelli

District Three

Brian Hamman

District Four

Mike Greenwell

District Five

Dave Harner II

County Manager

Richard Wesch

County Attorney

Donna Marie Collins

*County Hearing
Examiner*

Writer's Direct Dial Number: 239-533-8317

August 24, 2023

Dawn M Russell
Barraco and Associates, Inc.
2271 McGregor Blvd, Suite 100
Fort Myers, FL 33901

Re: River Hall
DCI2022-00026 - Major PD

Dear Dawn M Russell:

The Zoning Section has reviewed the information provided for the above zoning application. The Land Development Code requires additional information for the application to be sufficient. Please respond to each requirement not satisfied on the attached checklists. For your assistance, we have enclosed any additional memoranda from the various Lee County reviewing agencies.

A public hearing date will not be scheduled until a complete application is submitted.

If you do not provide the requested supplements or corrections within 30 calendar days of this letter, the Code requires that this application be considered withdrawn. Please feel free to contact me or the staff reviewers if you have any questions.

Sincerely,

DEPARTMENT OF COMMUNITY DEVELOPMENT
Zoning Section

Electronically signed on 8/24/2023 by
Dirk A Danley Jr, Planner, Principal

Dawn M Russell
Barraco and Associates, Inc.
Re: River Hall
DCI2022-00026
August 24, 2023

Planning Review:

1. Please update the table titled "Proposed Density Summary" on page three of the Request Statement and Lee Plan Compliance exhibit in order to reflect the updated density calculation of CPA2021-00016.

Legal Description Review:

1. Please provide a boundary survey in accordance with the requirements of Lee County LDC §34-202(a)(6). The boundary survey is missing state plane coordinates for the points of beginning. (POB). The legal description sketches do contain the coordinates for the POBs except for the "Less and Except Parcel 1".

TIS Review:

1. In reference to the LOS (Level of Service) service volume standard delineated in Exhibit 6 for distinct roadway segments, there have been identified inaccuracies in the reported LOS for specific roadway segments, as detailed below:
 - River Hall Existing Traffic Condition - Roadway Level of Service (pertaining to county-maintained facilities: Buckingham Rd, N. River Rd.)
 - River Hall Future Traffic Condition - Proposed Amendment Roadway Level of Service (pertaining to SR 31: spanning from SR 80 to SR 78)

[DPA Response: Comments acknowledged.](#)

In light of these discrepancies, it is recommended that a comprehensive review and rectification of the Level of Service assessments be conducted for disparate roadway segments, aligning with the prescribed LOS service volume standard elucidated in Exhibit 6.